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#273
DECEMBER 2014



# Here's to the crazy ones. The round pegs in square holes

As you know, we're always looking for exceptional things. And not just exceptional things in the most commonly associated meaning (you know: good stuff), but also in the more literal definition – ie, games, technology and people that are out of the ordinary, that somehow defy expectations or run against convention. This issue contains some great examples.

In our big interview, for instance, Richard Lemarchand explains why he walked away from Naughty Dog, a studio at the height of its powers, to try something new. It would have been no surprise to see him credited following the inevitable climactic showdown in *Uncharted 4: A Thief's End*, but instead Lemarchand is dedicating his time to helping a new generation of creators make their names at the University Of Southern California.

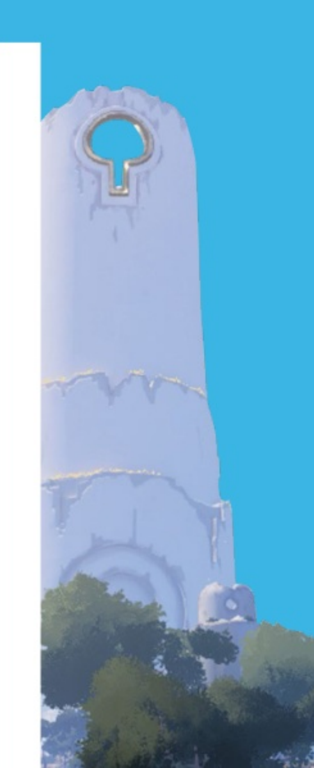
Elsewhere, we look at the origins of a most unusual breed – a genre of game that UK studios have dominated for years while the fortunes of the region as a whole have wavered. In UK Garage, the cream of the British racing development scene explain how they've defied the odds.

And from big studios to small, in New For Old we revisit the console homebrew scene to see how platforms such as Atari's Jaguar and Sega's Dreamcast live on thanks to the work of a band of coders, designers and artists determined to carve their own niches even deeper.

Continuing the Dreamcast theme, in The Making Of... *Rez* we meet with Tetsuya Mizuguchi to discuss the creation of a game that has lost none of its lustre some 13 years after appearing on Sega's console and PS2. In 2001, we hoped *Rez* might herald the beginning of a wave of hypnotic audiovisual experiments. That so few others were daring enough to follow in its wake demonstrates how lucky we were to see it at all.

Then there is *Rime*, from Tequila Works, a studio that is working hard to put Spain on the game-making map. *Rime* has among its visual influences the art of Joaquín Sorolla and Salvador Dali, while its tale is told not by NPC dialogue but by more experiential means. Exceptional indeed.



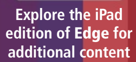



# games






106




Follow these links throughout the magazine for more content online










70

124

#273

# sections

DECEMBER 2014

## Knowledge



## Dispatches



## Features





56





92





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Our apologies to Edward Smith, who was incorrectly credited as Edward Lewis for The Making Of… *Wolfenstein: The New Order* in **E**272, and to SCEJ producer Masaaki Yamagiwa, whose name appeared alongside a photo of Hiroshi Kawano. Yours ingloriously, **Hedge**


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# Third dimension

Oculus VR unwraps version three of its Rift headset, but still isn't ready to talk about a final consumer model

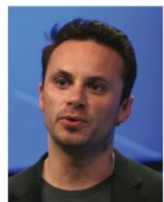
The Oculus Rift DK2 headset – an enormous, game-changing improvement over Oculus VR's first development kit from 2012 – is in the process of reaching developers and consumers, but it's already outdated.

Cosying your eyeballs up against the optics of the Oculus Rift DK2 headset can be like strapping on Keanu Reeves' head-mounted display in 1995 cyberpunk flick Johnny Mnemonic. It's virtual reality, all right, but it's VR through the lens of low-budget '90s CGI. In comparison, Oculus VR's new prototype headset, Crescent Bay, shown off at the Oculus Connect event in Los Angeles, is more like becoming Keanu Reeves in The Matrix.

At Connect, the VR company's first developer event, CEO **Brendan Iribe** talked about "presence" in VR: that sensation of reality that the virtual still can't quite match. Presence isn't about photorealistic graphics, but rather tricking the senses and making them buy into the headset's array of pixels. "Presence" may have seemed like a marketing buzzword during the new era of VR development, but using a Crescent Bay unit brings its importance into focus.

The new prototype is significantly lighter than previous Rifts, with a simplified strap system that tightens over the top of the head with a strip of velcro. A pair of vintage-Walkman-style earphones descends flimsily from the sides of the prototype, but they remove the awkward which-do-I-put-on-first dance of Rift and headphones. More importantly, the earphones signal a new focus for Oculus on positional audio, a key ingredient in achieving presence in VR. Oculus has licensed RealSpace 3D's audio technology, a library that allows game developers to program positional sound data for Rift applications.





FROM TOP **John Carmack, Brendan Iribe and Michael Abrash gave keynotes at Connect, Oculus VR's dev conference**

**The biggest changes** to Oculus Rift are inside. The display now runs at 90Hz, ramped up from the DK2 unit's 75Hz. It's also a higher-resolution display, its pixel density improved enormously over DK2's 1920x1080 array (which, split between two sections, makes for a resolution of 960x1080 per eye).

The original Oculus Rift development kit offers an even lower 720p resolution, and suffers greatly from a 'screen-door' effect thanks to the black grid separating each pixel in the low-density array. Using DK2, by comparison, is like staring through a much finer mesh, and in Crescent Bay the grid is nearly invisible. Though Oculus VR has not confirmed its precise resolution, the new display seems better even than the 2560x1440 display of Samsung's Galaxy Note 4, the phone powering Oculus's mobile project, GearVR. Part of that clarity, says Oculus VP of product Nate Mitchell, is down to the improved optics that sit between eyeball and display. He won't disclose the exact resolution, but Crescent Bay may be using a 2560x1440 display, with some clever engineering in the lenses minimising the screen-door effect.

Mitchell is keen to talk about the "experience" of Crescent Bay rather than its specific components. Again, it sounds like it may be marketing spin, until you actually put on the headset and experience the combination of the clearer optics, denser display, positional audio, and 360-degree head tracking, which is the last major addition to Crescent Bay. LEDs on the front, sides and rear strap of the headset allow a positional tracking camera to follow your every head ▶



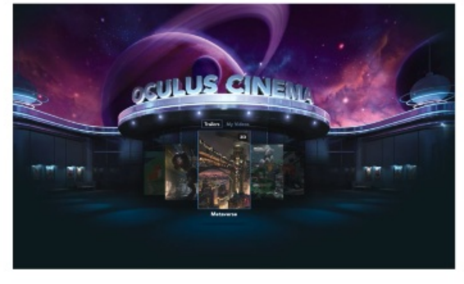

Crescent Bay's prototype earphones look cheap but, crucially, serve to deliver convincing positional audio




GearVR feels like a toy compared to Crescent Bay, but it's lighter than the Rift DK1 unit, as well as offering a much clearer display, thanks to its use of the Samsung Galaxy Note 4 screen. Some of the most effective early GearVR demos (below) give a new dimension to video and photo content






**VIRTUAL GEAR**

**In the year since he joined Oculus VR, John Carmack has been working on GearVR, which uses the Samsung Galaxy Note 4 CPU, GPU and 5.7-inch 2560x1440 OLED display for VR. The obvious advantage GearVR has over the PC-based Rift headsets is portability; it doesn't need to be tethered to a PC to run. That also limits its capabilities.**

**The density of GearVR's display is an improvement over DK2, but it only refreshes at 60Hz and lacks the crucial head tracking Oculus uses in DK2 and Crescent Bay. Samsung and Oculus have collaborated on software for Gear VR, which has an Xbox One-style dashboard and some simple games and apps. The most engaging place you 'inside' 3D photo and video panoramas. There's no Crescent Bay-like presence, but the apps make a good case for the power of virtual tourism.**

movement. The moment you take a real, physical step and feel that movement translated into VR, you get presence.

Oculus used a bundle of minute-long demos to show off Crescent Bay's capabilities, the most powerful of which places you on the ledge of a skyscraper overlooking a steampunk-styled cityscape. Peeking over the edge or trying to step forward instantly triggers the same vertigo acrophobics feel on rooftops.

Another, and by far the most charming, renders a tiny model town in front of you, with a miniature train chugging along a railway and a cute UFO wobbling above its buildings. Moving your face close to the town feels like lording over an adorable *SimCity*, while also providing a good demonstration of Crescent Bay's positional audio. The noises of the city fade in and out and move around your head as you get closer and shift focus from one part of the city to another.

Another demo places you inside a forest rendered in simple, pastel polygons with a crackling fire and a grazing deer a few feet away. Standing still and absorbing the ambient noise, which shifts realistically as you look around – or, even better, walking through the three-dimensional space – is the closest technology has come to replicating the Star Trek holodeck, at least in a device that almost anyone will be able to own.

'When' is the difficult question. According to Mitchell, Oculus VR currently has no plans to sell Crescent Bay. Developers are only now receiving Rift DK2 units. Could Crescent Bay become a DK3 released in 2015? Or is it an early version of the long-awaited consumer unit? If it is, it likely won't arrive until late 2015 – Paul Bettner, developer of VR platformer *Lucky's Tale*, says he plans to release his game in the first half of 2015, before the consumer headset is available. Bettner has commended Oculus VR's pursuit of perfection, but it seems that the end of 2015 is the earliest the consumer headset will show up.

Even in prototype form, Crescent Bay is the first Rift that seems ready for the masses. There are the significant technological improvements, for starters. Faster and more accurate positional tracking and higher refresh rates minimise the common causes of VR motion sickness. "There are broad ranges of sensitivities [to refresh rate]," **John Carmack** noted in his Oculus Connect keynote. DK1's 60Hz made almost everyone motion sick. Crescent Bay's 90Hz, however, is fast enough to be imperceptible to most users. Its effect, a beguiling sensation of feeling truly present in a 3D environment, seems powerful enough to sell to anyone.

**But what will** it take to turn Oculus VR's short demos into full experiences that really sell the potential of VR? As the company barrels ahead towards an eventual consumer version, that task will fall to game developers. Devs working on games for DK2 have to contend with stereoscopic rendering at 75Hz, which is far more demanding than running a game at 1080p and 60fps. Crescent Bay runs at an even higher resolution and refresh rate. In his Oculus Connect keynote, Oculus VR chief scientist **Michael Abrash** noted that 90Hz VR requires "effectively about six times the rendering rate of current games". Demo units used Intel i7 CPUs and Nvidia's GTX 980 cards to hit 90Hz in relatively simple demos.

Epic's Showdown demo presents a slow-mo on-rails battle that shows the potential of Unreal Engine 4 in VR

"I can summarise VR graphics in four words: a lot more everything," Abrash said. "We're going to need higher-quality graphics, we're going to need more graphics, and we're going to need faster graphics. Hardware and software throughout the pipeline will have to change massively, causing a re-evaluation of the techniques that have been worked out so carefully over 30 years. For a while, graphics will be the Wild West again, as a slew of experiments get run to find out the new graphics sweet spots for the VR world."

The technology industry is clearly up to the task – the likes of Intel and Nvidia never stand still, and they will rise to meet the demands of VR. Oculus VR's biggest obstacle is more nebulous: how will it bring the immersion of standing VR to consumers in their homes?

"The Oculus Rift is a seated experience," said **Palmer Luckey** at Oculus Connect. "The Oculus Rift is a seated experience right now, and we encourage people to not stand. Because we don't support that."

Why, then, were all of the Crescent Bay demos built around the ability to stand? "Technically speaking, our camera is very wide field of view; we can cover an entire room with just one camera," Luckey continued. "But we don't encourage people to use it that way."

Even Oculus VR may not know exactly what shape the first consumer-ready Oculus Rift will take

Read between the lines, and you'll see a company aiming to bring that standing experience to consumers somehow. It's not going to be easy. There's still the issue of the power and HDMI cables running to the headset, and many users won't have a powerful PC in an open space where they can stumble around wearing a Rift. At this point, even Oculus VR may not know exactly what shape the first consumer-ready Oculus Rift will take.

But it will need games, clearly. Developers may not all be able to deliver the incredible sensation of presence when they release their first Rift titles, but everyone who buys the tech will be eager for games to play. Now that most developers interested in VR have Oculus Rift DK2s, the real work is just beginning.

Luckey: "A game usually takes years to put together and polish, so many of the [developers at Connect] are at the point where they have one level or one demo that's a core gameplay mechanic that proves that it works well, but it hasn't been built into a full game yet. I'm looking forward to those little core mechanics being built into real content that are things people want to play."

Oculus VR's internal content team built the demos for Connect, several of which ran on Epic's Unreal Engine 4. According to Luckey, the team is developing firstparty games in addition to tech demos. "We have them building a wide range of experiences, seeing what works and what doesn't. For every one of those demos you saw, there's five more on the cutting-room floor that either didn't work at all or didn't work well enough yet to show at Connect. But some of those things might be more than just tech demos. A few years from now, you'll look back like, 'Oh, I remember seeing that when it wasn't a game.'" ■



Oculus VR co-founder Palmer Luckey celebrated his 22nd birthday at Connect

# Tokyo drift

## Japan's leading game expo shows how the region continues to distinguish itself from the west

This year's Tokyo Game Show boasted its second-largest attendance in history – 251,832 over four days, bested only by the turnout for the PS4-debuting 2013 event. And yet from a western perspective it was a curiously unspectacular show.

A record 421 companies presented some 1,363 games, the most popular examples, including *Monster Hunter 4 Ultimate*, *God Eater 2: Rage Burst*, *Yakuza Zero* and *Bloodborne*, made in Japan. Behind the headline numbers, though, lay some concerns.

Japan has for some time been trending away from home console games in favour of handheld and mobile titles, and the state of new-gen support at TGS made for grim reporting. Of the games listed above, only *Bloodborne* is exclusive to a new-gen platform, and indeed it is published by the platform holder, SCE. *Yakuza Zero* is on PS4 but also PS3, while another big title, *Resident Evil: Revelations 2*, is also cross-gen on Sony and Microsoft platforms. The new hardware simply doesn't have the installed base in Japan to make the leap worthwhile.

"We always want to support new hardware and offer better graphics, so it's natural for us to support the new systems, but we have to pay attention to these things, because we want to reach the widest audience possible," *Revelations 2* producer **Michiteru Okabe** explained.

The lack of a Wii U version of Capcom's game, despite the first *Revelations* originally being made for 3DS, is also telling. Nintendo does not have an official presence at TGS, but while 3DS games popped up on numerous thirdparty booths, the only Wii U games we saw were Sega's *Sonic Boom* and a Bandai Namco game based on kids' cartoon Doraemon. In *Revelations 2*'s case, Okabe blamed the difficulty of making a multiplatform game that would also run on Nintendo's system.

On Microsoft's booth, we saw few games made in Japan for Xbox One. *Mighty No 9* drew healthy lines, as did *The Evil Within*, which was packed on all three booths where it was shown. Xbox's core audience in Japan are drawn to the console for its lineup of western titles, and the biggest hit on its booth was a first hands-on with *COD: Advanced Warfare*.

"Having launched two weeks before TGS, I would say this is an important event [for Xbox One], because it's the event where we engage directly with the customers," said **Masashi Inoue**, a senior manager for Xbox in Japan. "Gamers are still waiting for the games they want to be on our system, but we have just started our journey."

> "Gamers are still waiting for the games they want on Xbox One, but we've just started our journey"

Based on a popular anime drama series, *Psycho-Pass* was the only Japanese game on the booth that was targeted purely at a domestic audience. Using Kinect and SmartGlass in concert to draw the player into a visual-novel crime narrative, the game is still a year from release, making for a somewhat bare-bones demo.

**There were plenty** of world-class games at TGS, but they were titles that had already been shown overseas at Gamescom or E3, and thus packed few surprises. A live playthrough of the newly unveiled Africa stage in *MGSV: The Phantom Pain*, along with new details of sniper support from Quiet and the reveal of Snake's pet wolf DD, certainly did the rounds online, but they failed to set the world's tongues wagging about TGS.





**From top: Masashi Inoue, a senior manager for Xbox in Japan; Michiteru Okabe, producer of Capcom's *Resident Evil: Revelations 2***



The good news is that handheld gaming is thriving in Japan. Sony's booth featured over 30 PS Vita titles, with *God Eater 2: Rage Burst*, one of many fourplayer co-op games following *Monster Hunter*'s lead, drawing long lines.

As for *Monster Hunter* itself, its booth was not quite as mobbed as Capcom would've hoped, but *4 Ultimate* still drew exceptionally well, not least because it was the only game at the show that was running on Nintendo's New 3DS.

Finally, there were several genres that were especially well represented, proving that Japan still does some things better than other regions. One is survival horror, with not only *The Evil Within*, *PT* and *Revelations 2* but also the announcement of Project Scissors, a collaboration from the makers of *Clock Tower*, *Silent Hill* and horror movie The Grudge.

Another was otome, the genre of romance games aimed at women, offering sweet seduction via episodic visual-novel games for smartphones. Leading otome publisher Voltage dominated with a booth where women could pose with dreamboat men, an amusing reversal of the still-prevalent 'booth babes' dotted around the show.

TGS may bill itself as an international event, but being based in Japan, its themes naturally reflect the needs of the domestic market. A high turnout suggests that the local audience was satisfied by its offering, but the fact that it failed to resonate with westerners suggests that the cultural gap continues to widen. ■





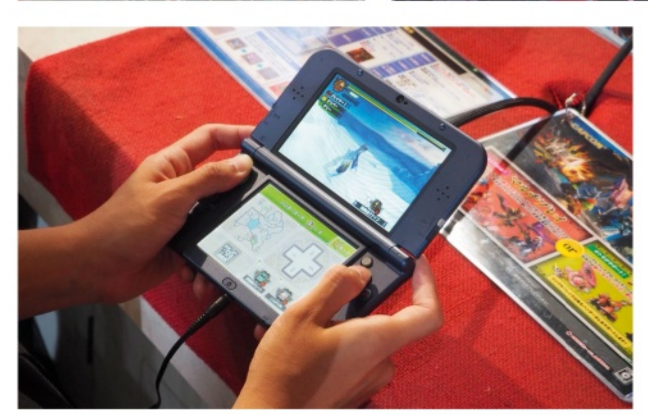

Kojima was on hand to demo 22 minutes of ***Metal Gear Solid V: The Phantom Pain***, including shirtless horse riding, sniping with Quiet, and jungle stealth




**While the dominant successes of TGS 2014 were domestic, *COD: Advanced Warfare* (above) appealed to the Xbox One fan seeking a more western flavour**







**Attendees were able to try out New Nintendo 3DS, courtesy of Capcom and the incredibly popular *Monster Hunter 4 Ultimate*, plus Project Morpheus demos *The Deep* and *The Castle***

## TOKYO TRAVELS

The international indie prospects reaching TGS



With Sony footing the bill for a large indie-game area, nearly 70 smaller developers from around the world were able to show their games for free at TGS. Some of the Japanese titles were at BitSummit in March, but there was also plenty of new stuff to see, including *Airship Q*, a fourplayer sandbox Vita game that feels like a more action-based *Terraria*; *The Girl From Gunma*, an iOS and Android throwback to 16bit sidescrolling shooters that is being reworked for a possible PS4 and Xbox One release; and *Little Witch Pie Delivery*, a witch 'simulator' for Oculus Rift that uses a full-size motion-control broomstick.

# Back to the '80s

UK game industry founders reflect on the past at the From Bedrooms To Billions premiere

At the end of a great hall in London's Earls Court exhibition centre, the face of Llamasoft legend Jeff Minter is displayed across three separate cinema screens. A grey-haired audience of his peers watches silently below, enraptured by this erstwhile outsider. In this room is gathered the cream of the old UK videogame industry – that is, the industry that grew fast and fat in the 1980s and '90s, and then faded from view somewhat as consoles from Japan and the US gained traction across Europe. They're here to reminisce about their salad days by watching a movie called From Bedrooms To Billions, by Anthony and Nicola Caulfield.

The documentary tells the story of the UK game industry, encapsulating its beginnings as amateurs assembled Nascom 1s and Compukits, and following through to the excesses of the 1980s, followed by the downturn of the mid-'90s, which saw so many publishers and developers close their doors against a backdrop of power shifts. The Caulfields interviewed over 140 industry veterans to make their movie, giving it a vibe that is at odds with something like Indie Game: The Movie, which focuses on a new generation of game-making talent.

Given the closeness of the UK industry, it's a surprise to see faces here and onscreen that haven't been heard of since their heyday. Their reasons for leaving the industry demonstrate how it has changed. **Archer MacLean** is here, the *Dropzone* and *Mercury* creator having departed videogames following a series of deals with distributors that ultimately came unstuck. *Revs* creator Geoff Crammond is here, back for a very rare appearance following his decision to quit some years ago when Infogrames closed Microprose, the publisher of his *F1* games. And up on the screen is Matthew Smith, creator of *Jet Set Willy*, who was so burnt out by publisher exploitation and the effects of celebrity that he gave up programming entirely.

**MacLean is clear** on his feelings about problems that marred the development of the UK game industry. "One thing they didn't want us talking about in [the film] is that most of the creative types in the '80s, they all got ripped off; some got destroyed," he says. "They all hinted at that [in the film], but they didn't want to cover it. Everybody in that room has, at some point or other, put their heart and soul into something and not got paid."

> "There were some in there tonight, I was shaking hands with them, but we were fierce competitors"

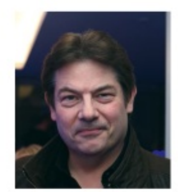
If you know where to look, there is certainly no shortage of stories like this, so you might expect the Earls Court venue to be filled with bitterness. Mostly, though, there's camaraderie. **Rod Cousens**, CEO of Codemasters, is candid. "There were some in there tonight, I was shaking hands with them, but we were fierce competitors," he explains. "There was no love lost in the day. But you look back with great affection and you do have the benefit, as time's moved on, of recognising that you built an industry. And sometimes we don't give that enough credit, because the new talent wouldn't be able to exist if the people in that room hadn't driven down the barriers. And there were a lot of barriers."

The removal of those barriers, whether by the actions of those in the room or not, has revived prospects for the bedroom coder. One thing that these old hands agree on is that the industry is cyclical. They're all thrilled that the home hobbyist is back, and yet most are skeptical that it'll last. **Gary Bracey**, formerly of Ocean, sums up their feelings: "It's great to see unfettered creativity once again being given the chance to flourish. However, evolution is inevitable once big money is involved, and it will transform as it did before, but hopefully having learned the mistakes made historically."

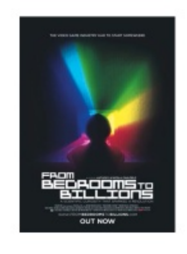
For many attendees, the premiere has been a chance to see old friends again, but what did they think of the film itself? "To my mind, the film proved that a bunch of amateurs, such as we all were, were unable to create a coherent vision of how the industry would develop," says **Andrew Hewson**, once of 21st Century Entertainment. "I thought then, and I still think now, that we had a tiger by the tail and that we had no one around us who could foresee how it might turn around and bite us." No one, save perhaps for Minter, whose decision to remain independent for all these years now seems like a prescient one. ■







FROM TOP **Ex-Virgin Games chief Nick Alexander and Jeff Minter join in the panel discussion; Rod Cousens; Archer MacLean**




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# Patchwork monstrosities

Why The Behemoth has spent four years perfecting the art of building custom arcade machines

The main hall of a large gaming expo is a surprisingly difficult place to make a lasting impression on people. The problem is competition: every square foot of floor space is occupied by things designed to grab attention, with giant screens showing cinematic trailers fighting for interest against seas of promotional banners that stretch into the rafters. It's all a bit much for most attendees to process.

The Behemoth, the San Diegan studio responsible for *Castle Crashers* and *BattleBlock Theater*, has found a clever way to stand out from the larger developers and publishers. Instead of simply setting up a handful of standard consoles and controllers, over the past few years it has built a series of increasingly elaborate custom arcade cabinets with novel control interfaces and eye-catching facades. The team does all the design and construction of these contraptions in-house, with everyone from QA leads to animators coming together to bolt and weld cabinets before every show.



**John Baez is a producer, founding member of The Behemoth, and the mind behind its show-floor cabinets**

The strategy seems to be working: at this year's PAX Prime, the line to play the studio's new game (simply called *Game 4* for now) rivalled those for juggernauts such as *Bloodborne* and *Assassin's Creed Unity*.

Creating these custom machines is far from an overnight process, and The Behemoth has been refining its method for quite some time. **John Baez**, one of the studio's co-founders, is the mastermind behind its show-floor experience. He built the studio's first custom cabinet in his garage back in 2010, and has designed all of the successive iterations ever since.

"I was totally amped up to make an arcade machine for *Castle Crashers*," Baez says of that original machine from 2010, "but we only had, like, ten days before we had to ship to [PAX Prime.] So we built that thing in four days. It was unreal. It kind of burnt everybody out, but it showed us the way."

It was a runaway success. After the popularity of that first machine, Baez and The Behemoth team endeavoured to replace their entire booth with similar machines, and dispense entirely with the notion of using normal controllers.

Baez expresses incredulity that more developers aren't doing something similar for their game kiosks. "All you have to do," he says, "is buy a Mad Catz fightstick and take it apart!"

> "If you only give the player what your game requires, you get such a better response"

Baez did exactly that, building a second generation of cabinet using scavenged fightstick hardware for PAX Prime 2011. The transition was complete, and The Behemoth showed off *BattleBlock Theater* on a full contingent of custom machines that year. There hasn't been a regular console controller to be found in its booths ever since.

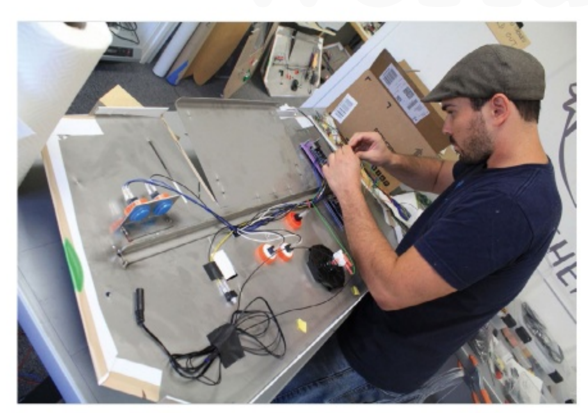
Meanwhile, Baez has continued to explore different control methods and cabinet designs. "Last year for PAX, I made a cabinet for *Super Soviet Missile Mastar*. It's the third cabinet for that game that I've made, and for this version I used a gigantic bowling ball as the controller," he says. "It has the bowling ball, a single button, and then it's got a whole bunch of little five-inch HD DSLR screens that are all chained together. Some of them are running the game screen, and then some of them are just running Russian propaganda video that we cut together."

**This experiment became** an inspiration for Baez's current *Game 4* cabinet design, which debuted at this year's PAX Prime. "Having this gigantic bowling ball as a controller really let us cut free from any idea that you need to have standard stuff for an arcade machine," he says. "That's why on this year's version of the *Game 4* cabinet we have a big lever to send your troops in, we have a gigantic A button, and just a little [joystick to move the] cursor… If you only give the player what your game requires, you get such a better response."

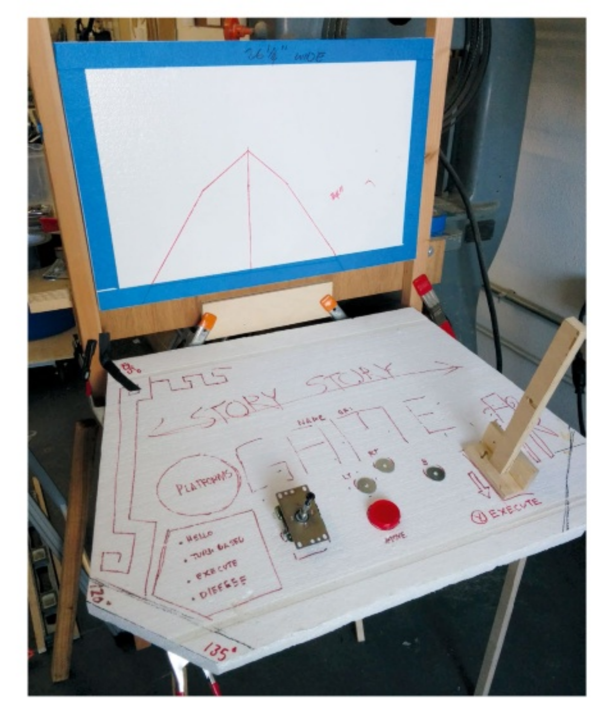
While the result of all this custom engineering is an attention-grabbing booth that can easily compete with its bigger neighbours, that's never been the primary motivation for putting so much work into these machines.

"When they come to PAX or Comic-Con or any of the other shows we do, we want people to come to our booth and have an experience they can't have at home," Baez explains. "[They can] stand in front of this machine and have this feedback with the machine. We're really interested in delving into that a little bit, scraping away at it and seeing what's there, because it's something that's totally missing when all you have is a nondescript black box that's plugged into your TV, and a generic controller.

"We're doing this because we like to build stuff with out hands, and because I want to pull this gigantic lever and send these [troops] to their possible death. I want to feel that visceral feeling, and then bring it here and share it with everybody. That's what it's all about." ■



While early versions of the custom hardware relied on the innards of a Mad Catz fightstick, Baez and his team have since moved onto more specialised interfaces

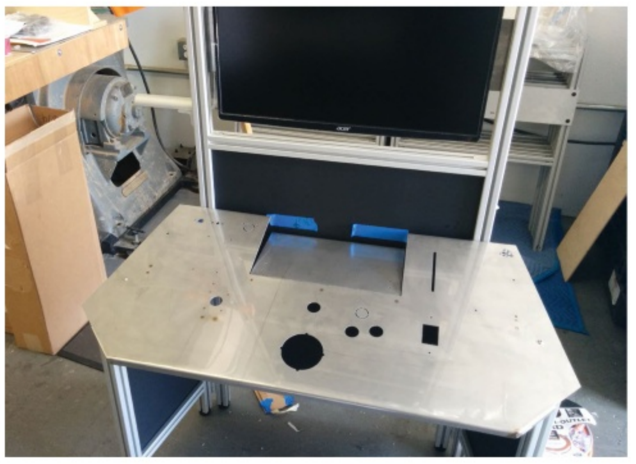





The cabinet design for *Game 4* draws heavily on ideas for *Super Soviet Missile Mastar*





Baez may design the cabinets, but a wealth of experience from across the studio is required to assemble them, with everything from welding to graphic design handled by the staff

## THE RIGHT PEOPLE

It takes more than one skill to be a Behemoth staffer



It's not a coincidence that The Behemoth team has the skills required to build an entire show-floor booth and several custom cabs from scratch – for the past four years, the studio leads have been deliberately constructing a diverse team with a range of useful skills. "It's definitely something that we interview for," Baez explains. "If you want to come be a tester or a product manager or something for us, there's no way you'd get that job unless you can also do something else that we can use, whether it's trade shows or it's some other skill. So it's just like an RPG – it's like: 'What's your secondary ability?'"

# Soundbytes

Game commentary in snack-sized mouthfuls



"I didn't… buy a bunch of luxury items. I bought a private jet because I thought it would make me more efficient in my work. **That was really stupid.**"

**Trip Hawkins** chews over his past – and $26m in unpaid taxes



"We market it so that, whether people like it or not, we do all the things we can to essentially **brainwash people into liking it before it actually comes out.**"

*Black Ops 2* director **Dave Anthony** shares marketing tips with the US military



"Some company, someday soon, is going to create a virtual world that grows larger than Facebook. And when they do, someone will look back at PlayStation Home and say, **'They were *that* close…'**"

Ndreams' **Patrick O'Luanaigh** reflects on a PS3 near miss

"If you want *Bayonetta 2* on PS4 or Xbox One, ask Nintendo. If Nintendo doesn't say yes, it's not going to happen. **While you're at it, try asking for *Mario* and *Zelda* too.**"



A little bit more of **Hideki Kamiya**'s winning community engagement

## ARCADE WATCH

Keeping an eye on the coin-op gaming scene



**Game** *Star Wars: Battle Pod*
**Manufacturer** Namco

While Episode VII is set for release next year, Namco is focusing on the original trilogy for its latest dome-screened machine. *Star Wars: Battle Pod* is based on the same POD (Panoramic Optical Display) cabinet and tech used for the company's *Ace Combat*-inspired *Mach Storm*. Like that game, *Battle Pod* is an on-rails shooter that allows some small movement within the boundaries of its set path. You'll still be able to direct fire, dodge obstacles and choose between routes, but your sweeping passage through each of the five stages is predetermined.

Those stages include Endor, which sits you in a speeder bike as you dodge through trees and knock particularly reckless stormtroopers from the nose of your craft, and also the iconic Hoth battle in which you'll run rings around AT-ATs in your Snowspeeder. You'll also get to pilot an X-Wing above Yavin, take on the Death Star II in the Millennium Falcon, and in a bonus stage called Vader's Revenge you're even handed control of the Sith Lord's iconic TIE Advanced x1 craft in a section that follows on from the conclusion of Episode IV.

The pod itself features a bucket seat that vibrates to the action onscreen, while fans blast players with air to accentuate movement. The huge wraparound monitor fills your field of vision, stretching 180 degrees around the seat, and *Mach Storm* players will feel at home with the controls, which are exactly the same combo of flight stick and throttle lever. The game will hit US arcades in January, with Europe and other territories to follow.

# My Favourite Game
# Flying Lotus

The LA-based music producer on being terrified of PT, how he came to host FlyLo FM, and finally clicking with The Last Of Us

Flying Lotus, AKA **Steven Ellison**, is the great-nephew of jazz legends John and Alice Coltrane, but his dazzling electronic music has carved out a reputation all his own. He's also partial to some PlayStation time – assuming his PC isn't taking precedence.

**What was the first console you got your hands on?**
I had a NES with the *Super Mario Bros* and *Duck Hunt* combo. And that existed in a wonderful time of childhood myths. You'd be at school, and someone would tell you about how the first jump could take you to the top of the pole, and if you made it up there, you could see Princess Toadstool naked. That was funny. I sort of miss that stuff. After that I had a Genesis, and can remember seeing *Sonic* for the first time. That seemed so cutting-edge.

**If you had to choose between Mario and Sonic today, which mascot would you side with?**
I'd go with Mario now, but then I'm not sure what he's up to. I don't know what Sonic is up to, either. I think Nintendo should stop doing consoles, and begin expanding those characters onto different systems. I don't think Wii U is doing too well, is it? It's a bit of a failure for them. PlayStation 4 won out for me.

**Why not Xbox One?**
I was a hardcore Xbox person until the One came out, and I do have one, but I never use it. When I want to play *Titanfall*, I do so on my PC – I just got a new gaming PC, and it's so much better on that. So my Xbox is just sitting there.

**RARE BLOOM**
**Flying Lotus emerged on the electro scene with debut album 1983 in 2006. Since then he's forged a singular path, colliding together hip-hop, techno and jazz to compose an intoxicating form of dance music that defies simple genre classifications. He's collaborated with the likes of Thom Yorke and Kendrick Lamar, and was thrilled to host his own radio station for Rockstar's *Grand Theft Auto V*. His fifth studio album, You're Dead!, is out now on Warp Records, with another set as his rap alter-ego, Captain Murphy, scheduled for a near-future release.**



**Are there any games from your past that have influenced your music?**
The music from *Final Fantasy VII*, that's the one. That was so epic. I play some of that soundtrack in my set sometimes, and just flip it a bit… I've sampled a bunch of videogames – *Silent Hill* is one of my favourite series, and I've sampled that a few times.

**Have you played *PT*?**
Yeah, I played it and beat it. It's so cool, but it did scare me – I could not play it alone. I called a friend over, and that helped a lot, because honestly that shit is frightening. I passed the pad over a few times: "You do a lap. I'm not doing this lap – you deal with that shit."

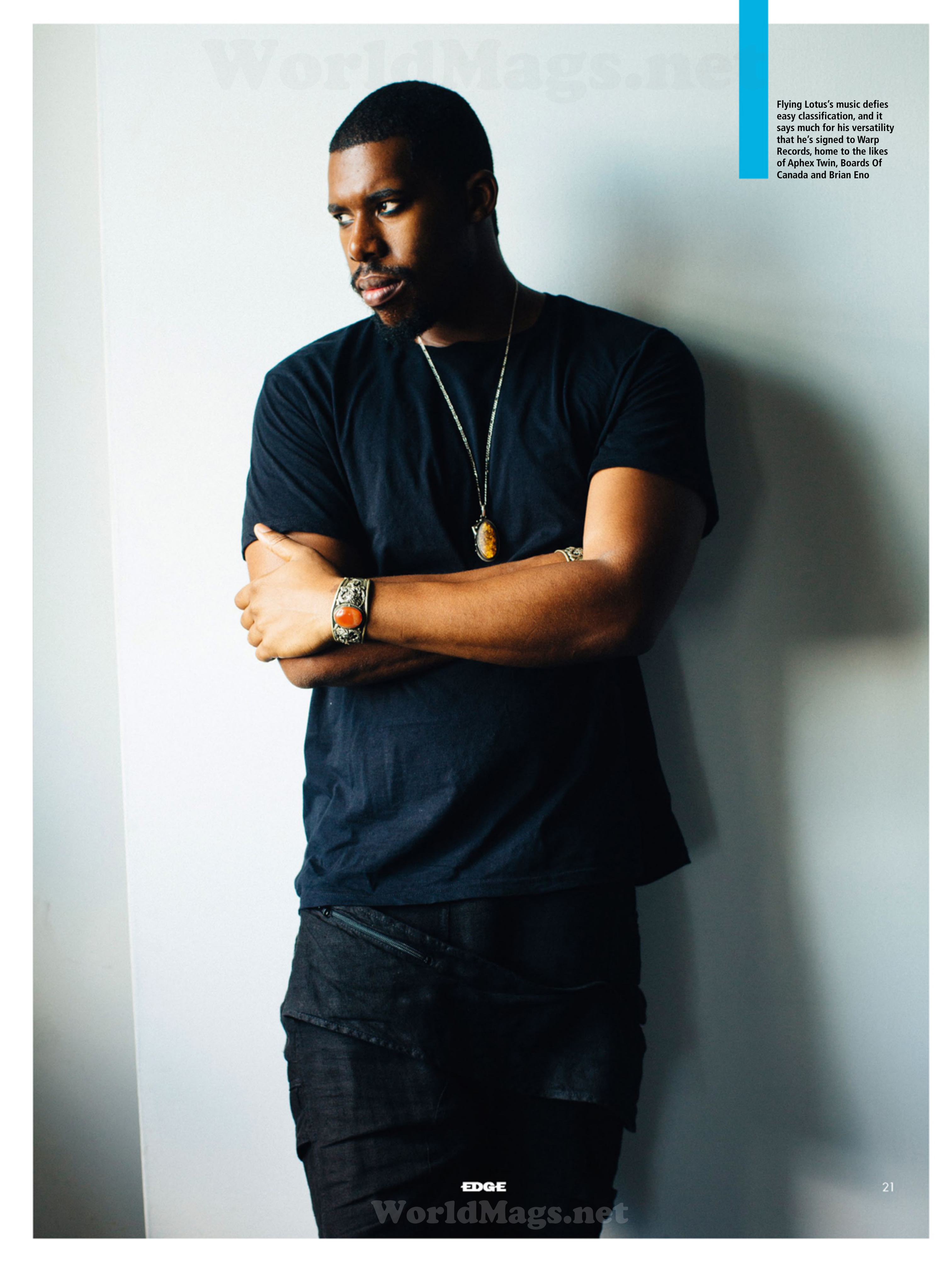
> "I could not play PT alone. I called a friend over, and that helped a lot, because that shit is frightening"

**But you're into scary games?**
I saw *Alien: Isolation* demoed for the Oculus Rift, and I've ordered the second devkit. I mean, I'm a gamer – I've got to have this stuff. I played a demo of *Isolation* and it's mind-blowing. The design of it – all this old-school tech – is amazing. It's total fan service. It's going to terrify me, I know it will, but I'm so ready.

**You finished playing through *The Last Of Us* recently, right?**
I played it when it first came out, but I found it really difficult, and gave up. But I saw people constantly talking about it, so I bought the remaster. I've played it all the way through, with the *Left Behind* stuff, and, yeah, I understand now why it won all those awards. It's brilliant, man. And the way they ended it? It's perfect.

**You worked on another big game of 2013, *Grand Theft Auto V*. How did that come about?**
Rockstar got in touch with me when I was at South By Southwest. One of their guys came into where I was playing, and said how we should do something together. They asked if I had a song, or any music, that I might be able to put into *Grand Theft Auto V*, and I thought, 'Yeah, maybe.' But then they asked: "What would be your ideal situation here?" I was like, "Shit, I'd like my own radio station." Everything came from that. But I almost messed it up. I was super faded at a gig in Atlanta before the game came out, got on the mic, and said: "All right, guys, I'm about to drop some new shit that's gonna be in a game I'm working on. You drive around shooting cops and shit…" And of course they're like, "*GTA*!" And you try to say no, but it's all over Reddit by then anyway. Rockstar told me that I might not be able to do the game any more. I was in trouble over that. It's amazing, though. I really would play that even if I wasn't involved; I was that blown away by the experience.

**Which game would you pick as your favourite of all time?**
*Final Fantasy VII*. I want them to remaster it, so I can play it again. They've got to do it, haven't they? ■



Flying Lotus's music defies easy classification, and it says much for his versatility that he's signed to Warp Records, home to the likes of Aphex Twin, Boards Of Canada and Brian Eno

## WEBSITE

**Bellbrook's sketchbook**
**www.bit.ly/destinyart**
Dorje Bellbrook, a Bungie concept artist and one of the winners of last year's Into The Pixel awards, has shared a huge amount of *Destiny* artwork on his website. Some of it has been around for a while, but much of what is on show here has never been seen before and reveals how different some of the early ideas for locations were to the finished articles. There are early, highly detailed examples of Hive and Vex architecture designs, and an image of an under-construction Venus Warp Gate in the form of a squat arch. The images show Bellbrook's experimentation as he honed his ideas, while his notes provide insight into the art direction given to him by Bungie. The studio specified, for example, that all human buildings have "recognisable floors and windows, so as to maximise familiarity".

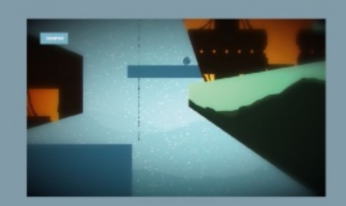



## VIDEO

**An evening with Sid Meier and Jake Solomon**
**www.bit.ly/Meiertalks**
In a rare public appearance, *Civilization* creator Sid Meier discussed making games with fellow Firaxis developer and *XCOM: Enemy Unknown* lead designer Jake Solomon at this year's Firaxicon. If you can get past Solomon's slightly heavy-handed interview technique, there's a great deal of insight into the humble Meier's career, as well as his game design ethos. The creator also revisits his toughest challenge (a game that attempted to merge *Age Of Empires* with dinosaurs: "There are no ranged dinosaurs…") and his twin passions of RC planes and racing games.

## WEB GAME

**Superdimensional**
**www.bit.ly/superdimensional**
*Superdimensional* is a buttonless autorunner that gives you control over the environment rather than its character. While you begin as a snow-covered rolling ball, you'll soon need to leap gaps or even get through apparently impassable walls. You can achieve this by shifting into other dimensions, which poke through into your world at certain points, each slice of alternative reality moved with your mouse. In the first of these, your ball becomes a squid that ascends slowly through murky green water, while another is full of dangerous machines to be negotiated by a wall-climbing blob. The concept – dangers and obstacles in one zone can be avoided in another – is slightly undermined by awkward controls, but it's worth exploring nonetheless.



# THIS MONTH ON EDGE

When we weren't doing everything else, we were thinking about stuff like this

## RACING WHEEL

**T80 Racing Wheel**
**www.thrustmaster.com**
The T80 is the first officially licensed driving wheel for PS4, and represents Thrustmaster's entry-level setup. As such, it doesn't feature force feedback but instead uses a bungee-cord system to simulate resistance. The effect is good, especially given that the wheel costs £90, and inputs feel responsive and tight. All components, including the foot pedals and shift paddles, are plastic but attractively designed, although the bright red light in the centre of the wheel is irritating. The brake pedal sports progressive resistance, and a simple clamping system will fix it to most thin surfaces. While players used to premium wheels will miss the wider travel of more expensive kit – the T80's wheel only turns through about 200 degrees – it remains an excellent option for the price.



## continue

***LittleBigPlanet 3***
Fry and Laurie reunite. Spoilers, US readers: Dr House is *English*

**Vib Reborn**
Twin Peaks is back, *Vib Ribbon*'s on PSN; these grey hairs should disappear any second

***Destiny***
The summer drought ends. And thus we have yet another obsession

**Steam Curators**
Valve hands discovery to those with taste…

## quit

**Home goes away**
PS3's social network is sent to the great virtual living room in the sky

**First degree Mordor**
Warner forces YouTubers to be positive about *Shadow Of Mordor;* YouTubers try to justify it

***Destiny***
Couldn't this have come in June? The year-end deluge won't review itself

**Steam Curators**
…and video makers who promote games for cash

## TWEETS

My son is going through "Learn Unity for 2D Game Development". It recommends making every sprite 4096x4096. I am deeply appalled.
**John Carmack** @ID_AA_Carmack
Chief technical officer, Oculus VR

Girlfriend didn't believe I played a game called "Butts Up" in grade school. Wikipedia proved it. Not sure if I win.
**Chris Remo** @chrisremo
Developer and composer, Campo Santo

Why don't screenshots have geolocation information in them like photos do. New image format: Game, Zone, Date & Time encoded in header.
**Dusty Monk** @Dusty_Monk
Senior programmer, Robot Entertainment

*Shadow Of Mordor*, the game where you stab a guy in the face so many times that he has to start wearing a bag over his head. 10/10.
**Olly Moss** @ollymoss
Artist, Campo Santo




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# DISPATCHES DECEMBER




Issue 272

## Dialogue

Send your views, using 'Dialogue' as the subject line, to edge@futurenet.com. Our letter of the month wins a SteelSeries Wireless H Headset, or an Apex keyboard and Sensei Wireless Laser mouse










### Clubbed out

I'm writing this after one of the most frustrating weekends I've ever had with a game. *DriveClub* is broken; a game that was sold heavily on its social features currently has no social features at all. I'm furious. **E**272's Big Picture Mode article pointed out how Sony's halo had slipped since its brilliant pre-release marketing of PS4. To me, its handling (sorry) of *DriveClub* has seen that halo fall off entirely.

This, lest we forget, was a game announced with great fanfare as a PS4 launch title, as the world's most social racing game. At E3 last year, Sony used the cut-down PS Plus Edition of the game to sweeten the pill of the company now charging players for online multiplayer. Then the game was delayed, for almost a year, and what has emerged is clearly not finished. We expect content to be added after release, but not features, like the currently absent replay mode and dynamic weather.

"The game was delayed, for almost a year, and what has emerged is not finished"

And then the world's most socially connected racer launched with server problems so bad that the PS Plus Edition had to be delayed again to prioritise paying customers. But even we can't connect. The fact that a patch came out on a Saturday evening suggests that the developers at Evolution have been working around the clock to get the problems fixed, but it hasn't helped at all.

Unable to get online with the game, I spent a good chunk of the weekend at a friend's house. He bought an Xbox One at launch, and recently picked up *Forza Horizon 2*, and while we've spent the last 18 months or so gently ribbing each other for having backed the wrong horse, this was a chastening weekend. *Forza* looked great, Xbox Live was rock solid throughout, and with Steve Ballmer and Don Mattrick gone, I'm running low on anti-Microsoft ammo. Xbox One's abysmal reveal handed the advantage to Sony, and while PS4's sold well, it feels like the tide may now be turning in Microsoft's favour.

**Andrew Holmes**

Sony execs insist they're not complacent following PS4's early success, but the *DriveClub* launch was a mess. Microsoft is clawing back in the battle for hearts and minds, if not in actual hardware sales, though at this rate that'll change before too long. And we miss Ballmer, too.

### Static shock

I've been an Xbox One owner since day one. However, I'm starting to feel annoyed that I've just paid £40 for a year's subscription to Xbox Live Gold when I don't feel I'm getting anything from it. On my beloved 360 I had regular demos and Arcade games to try, and a whole host of nice apps. What do I have here? A free game every so often, and Channel 5 on demand.

Oh, and the chance to pay £55 for a new game. Look at *Alien: Isolation*'s page on the Xbox One store. There's a tiny bit of text in a window, some static images, and that's it. This is meant to be the all-in-one box that lets me get great new games from my couch. Am I supposed to be convinced to part with £55 based solely on a handful of static screenshots? I daren't hold out any hopes for a downloadable demo, since they're as rare as hens' teeth lately. The 360 was my favourite machine since the glory days of the SNES and the PS1. This generation just feels wrong so far.

**Gareth Jones**

The quiet death of the free demo is a sad result of the switch to the new generation. Microsoft insisted on there being demos for every XBLA game; perhaps it should do the same for videos on Xbox One.



**www.facebook.com/edgeonline**
Discuss gaming topics with fellow **Edge** readers

## Message failed

What's going on at Ubisoft? I'm a huge fan of *Assassin's Creed*, but the messaging around *Unity* has been dismal. The game looks fantastic, but it seems like every time I read about it someone's putting their foot in their mouth. At E3 we had the staggering claim that women were too hard and time-consuming to animate, as if making 1:1 recreations of famous Parisian landmarks is a quick five-minute job. One of the team's more positive E3 claims – that they were shooting for 1080p and 60fps on all platforms – has come to nothing, too. But I played *Black Flag* on PS4 at 900p and was happy enough with it, and while I'd prefer 60 where possible, I've happily played more than enough open-world games at 30fps for news of this latest Ubisoft 'downgrade' to particularly bother me.

What got me, though, was the attempt to justify it: that 30 is more cinematic, that the industry is gradually moving away from 60fps, that The Hobbit movies were shot in HFR and look a bit weird. Nonsense, the lot of it, and obviously so, so why peddle it? Surely Ubisoft's PR men realise that their audience – or at least the part of the audience that reads previews – is smart enough to see straight through this stuff?

I can only assume it's because Ubisoft staff are trained to put a positive spin on something negative when caught on the hop. But the old 'more cinematic' excuse? Come on. Tell us that you're pushing the new consoles so hard that something had to give. That you were struggling to hit a stable 60fps when there were thousands of NPCs onscreen. With all their handholding, games are patronising enough as it is. The last thing we need is the same treatment in real life from the people that make them.
**Jason Whittaker**

Well, they're not wrong about The Hobbit, but it's troubling how frequently one of the biggest companies in the industry manages to say the wrong thing when talking about its most prized asset. Let us know which SteelSeries gear grabs you, and it'll be on its way.

## Bring on the sub

How sweet that new SCEA boss Shawn Layden has flexed his executive muscle and got *Vib Ribbon*, one of his favourite games, on PSN. It's great to see that someone that truly loves games – and the right games, might I add – is so high up in Sony, using their power to serve a certain kind of player.

That said, I can't sit around and wait for another management reshuffle before I get my beloved *Devil May Cry* 3 on PS4. *Vib*-style ports, and PlayStation Now's cloud-powered store, are great, but when is one of the platform holders going to give us what we really want – a Netflix-style subscription service for old games?

I'd love to see Nintendo try it. While Microsoft and Sony have to solve complex technological problems to get their games running on new hardware or efficiently streamed through the cloud, Nintendo has an amazing back catalogue of games with tiny file sizes just sat there doing nothing. Well, not quite nothing – there's always the overpriced Virtual Console – but I'm far less likely to spend £5.49 on yet another version of *Super Mario World* than I am to pay the same amount for a monthly subscription giving me instant access to whatever I want.

I am quite sure that such a move would benefit Nintendo, or any other platform holder that offers it. What worries me is that Nintendo may interpret low sales of Virtual Console releases as reflecting a wider lack of interest in old games, or that Sony's high pricing on PlayStation Now will convince it that players are wary of paying for games stored in the cloud. I understand the reticence to give so much away for so comparatively little, but I'm convinced that whoever goes first will do well out of it, and inspire others to follow suit.
**D Adams**

Netflix, Spotify and their ilk were born partly out of necessity, as music and film industries strove to combat piracy, which is a lesser problem on consoles. That said, we'd sign up to a Nintendo service in a heartbeat.

## Reality check

I'm extremely excited about the apparently imminent virtual reality revolution, but I'm not sure that Rift and Morpheus are going to be leading the charge in the way that people imagine. Don't get me wrong, I really want a Rift when it's finally ready, but I think most people will initially experience VR through lower-specced (and lower-priced!) technology.

Paying what will probably be close to the same as a new console for a headset will be too much for most people, when most of us already have our most expensive piece of technology in our pockets – our phones. There are already a bunch of phone- and tablet-based headsets in the works, including the Altergaze (which is 3D printed!), the Vrase and Zeiss's VR One, projects that are aiming for lower price points by using your phone as a screen.

These are surely the kinds of VR headsets that will proliferate, regardless of the simpler, less visually stunning games that will be available for them. With such a shift in the way we play games, graphics aren't going to matter as much as they do for a console launch game, and neither is the depth, complexity or even length of gameplay. And this will be even further enforced given that the delivery mechanism will presumably be various app stores, and so games will cost pennies. Facebook might want to put VR in the hands of billions, but I don't think the company it just bought is going to be the one to do that first.
**Aaron Lyttle**

Perhaps, but it doesn't matter who makes it massmarket, so long as somebody does. The more companies making headsets, the greater the chance of it happening. ■







STEVEN POOLE

# Trigger Happy

Shoot first, ask questions later

Recently, a friend of mine told me a melancholy little story about his experience of playing the *Destiny* beta. He had been running around shooting men in the face with a moderate degree of pleasure, and then, during a lull in the action, he found himself near another player. My friend pressed a button he thought would do something like bring up his inventory or reload; instead, to his mortification, it caused his female avatar (which he had selected purely at random) to begin performing a vaguely erotic dance in the direction of the other player. The other player, dressed in a big, chunky man-avatar, reacted quickly — by throwing grenades at my friend. "I just felt so… violated," my friend reported sadly. He never played *Destiny* again.

The violation in question was nothing to do with my friend's accidental gender-play but something more fundamental. He felt that his personal experience of the game, and the imaginary narrative world that he was in the process of constructing within it, had been violated by an unwanted and unpleasant social interaction. He was embarrassed at having accidentally pressed the dance button, and the other player's response was gratuitously aggressive. It left a bad taste in the mouth. The fact that it was mandatory for the *Destiny* beta to be online, and that therefore such banal nano-tragedies couldn't be avoided, meant the game was over for him.

If you can't escape unpleasant social interactions by playing videogames any more, where can you go? *Destiny* is just one example of an increasing trend in videogames for an always-on online component, either enforced or at least as the default. (It was with much relief, for example, that I discovered I could switch off the ability of random other *Watch Dogs* players to interrupt my playing of the game by hacking me.) As Patrick Klepek has recently argued with reference to *Destiny* and *Diablo III,* one possible problem with the rise of the mainly multiplayer blockbuster is that "games can be less mechanically compelling, so long as the multiplayer element is engaging". There's nothing wrong with multiplayer if that's what you like, but the built-in fun of playing with friends (or strangers, if that's your bag) can cover up a multitude of sins in the deep game design.



Illustration marshdavies.com

The built-in fun of playing with friends (or strangers) can cover up a multitude of sins in the deep game design

A cynic might add that a videogame that requires a working Internet connection is also well placed to attempt to hijack the unwary user's Twitter feed and Facebook statuses, so as to relentlessly spam adverts for itself at everyone in the player's network. Responsible designers don't do this, but there is possibly a deeper and more worrying ideology at play in the enforced-multiplayer trend – that 'social' is healthy, while its absence is somehow decadent navel-gazing.

Part of this stems from an assumption that the normal experience of art, because it is solitary, is somehow unsocial. But of course it isn't. Because in reading a book, or listening to a symphony, or looking at a painting, or playing a singleplayer videogame, we are inevitably already engaged in a social activity. We are in mental dialogue with the creator of the work in question, a dialogue that is mediated through the artwork.

And while a singleplayer (or single reader, etc) experience can be richly social in this way, some phenomena that fit a more popular definition of 'social' are far from desirable in themselves. After all, what else is social? Lynch mobs, neo-Nazi rallies, online witch hunts, and organised trolling. When people get together and act socially, hatred and irrational belief can be amplified to the extent that the group ends up acting in a way that few or none of its members would have chosen as individuals. This is a truth that an era that celebrates the 'wisdom of crowds' would be wise to remember.

Blame Facebook and the various other faceless mega-tech corporations, if you like, for the general cultural idea that 'social' now means little more than the electronic connection of atomised individuals into an ad-hoc group ripe for targeted marketing. But we, too, are partly to blame for the unexamined idea that whatever happens in a 'social' setting must be nice. I – and other commentators – have often defended the worth of videogames as a medium by pointing out the joys of co-op and other 'social' modes of play. But if that means having to interact with potentially psychotic strangers on the Internet when I just want to play a videogame, then I hereby recant. Give me blissful digital solitude every time.

*Steven Poole's Trigger Happy 2.0 is now available from Amazon. Visit him online at www.stevenpoole.net*







IAN BOGOST

# Difficulty Switch

Hard game criticism

Entering a game retail store is a lot like entering a sex shop or a liquor store. The game shop deals in the equipment of a different kind of sin, the sin of empty diversion – at least in the eyes of those who turn their noses up at the practice. But even among those who embrace games, game shops are still vaguely unseemly. They're slightly grimy and unbecoming places where people plunk down cash in advance for the latest dark, brooding, big-dude shooter or to trade in the spent disc of the last one.

By contrast, neither sex nor liquor takes on quite the same tenor outside of the speciality shop as it does within one. In the bar or the club, for example, conversation and dance cut the strength of booze, even if drink remains the lubricant for these other social practices. There's something about a whole retail establishment devoted to a singular practice of any kind that just sits strangely. It implies perversion, excess.

Buying games wasn't always such a specialised affair. I first encountered the 1986 Macintosh title *Dark Castle* in a special alcove of the shopping-mall book retailer B Dalton. Games in a bookstore are different from games in a game store. In a bookstore, they become one kind of media alongside others, intermixed with novels and self-help tomes, cookbooks and cartoons. The bookstore cuts the lewdness of games just as the pub cuts the decadence of drinking.

That alcove in B Dalton would be spun off as Software Etc in 1987. A little more than a decade later, after a series of bankruptcies, mergers and sales, the chain would re-emerge as GameStop. Last year, it brought in over $9 billion in global revenue.

Today, games are usually found in speciality shops such as GameStop or locked up in big-box retailers such as Walmart and Best Buy. Here, they become consumer electronics accessories akin to headphones, not cultural media artefacts akin to books.

When game buying moved online, at first it did so under the anonymity of all online




Illustration marshdavies.com

As at the sex shop, a special, committed knowledge is required to even make sense of services like Steam

commerce: as commodities suspended in the generic blankness of a retail webpage. The web returned games to the menagerie of other media; like a book or a film or a record, a game was just another product that would arrive in a parcel at your door two days later.

But soon, online game retail bifurcated into two different worlds, each of which doubled down on a different bet. On one side we find Facebook app directories and the Apple App Store (and its ilk). These methods signalled a return to the mall bookshop approach, albeit in a different way. Games became baubles and gewgaws, pleasant little media creatures sold alongside e-books and music singles, or delivered between profile pictures and status updates. They became integrated into the vernacular of online and smartphone life.

On the other side, we find the digital version of the speciality retailers – the likes of Steam, or the PSN and Xbox Live console stores. As at the sex shop, a special, committed knowledge is required to even make sense of these services. They involve special, dedicated hardware and software installations; they rely on intricate, custom interface grammars and on idiosyncractic interaction models. Even commerce is unseemly here, a realm where the shroud of redemption codes and prepaid cards make ordinary transactions seem sordid.

These services repeat the unlearned history of Software Etc and GameStop before them. By fencing off games into dedicated outlets, they make the very idea of a game subject to the special practices and identities of those who would commit to becoming the devoted patrons of such outlets. This sequestration is clearest on Steam, where even the act of playing of a game is siphoned through a dedicated client that tracks play time and lures you into peripheral activities such as message boards and trading cards. Even unusual indie games of potentially general interest demand that their audiences tolerate the weird and inhospitable griminess of this foreign service in order to buy them.

In the digital retail ecosystem, the various app stores have become associated with schlock and kitsch among purportedly serious players. But the tawdry main street helps counteract the bawdy underworld. When games feel like a product one can buy out in the open, they become more normalised, more ordinary, more proper. In that respect, games' overall repute might correspond with how little shame people feel when buying them.

*Ian Bogost is an author and game designer. His award-winning* A Slow Year *is available at www.bit.ly/1eQalad*



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NATHAN BROWN

# Big Picture Mode

Industry issues given the widescreen treatment

Autumn has arrived, then, and while we're every bit as excited as you at the release schedule finally picking up, the sudden avalanche of new games does carry with it a certain dread. It's NDA season, with each email informing us that review code is now available accompanied by a novella-length legal document threatening to have the shirts from our very backs if we break the embargo.

Luckily, we've got a legal department to check them over for us – and just as well, because we'd only send them back unsigned, pointing out that the final paragraph could do with some punching up. Still, there's nothing like the sight of a legal contract spooling out of the printer to make you sit up in your chair and realise that this is, after all, still a serious business.

Yet these NDAs, coming perhaps a couple of weeks before the release of a big game, are simply an intimidating legal communication of an embargo. The threats they carry can surely be nothing compared to those in the kind of contract we expect was broken by a QA tester on *Destiny*, who used Reddit to talk about content that had allegedly been cut from the final game. Activision, it was claimed, had pared back the launch version of the game in order to sell more DLC later.

As ever, there's no way of knowing for sure whether this is the absolute truth, an embellished version of it, or a complete fabrication. The fuss around it is certainly full of assumptions, a grand conspiracy theory extrapolated from an unsubstantiated allegation, but there are few things the Internet does better than that nowadays. But alongside the now-standard outrage – plenty of it landing in the **Edge** inbox – we've also seen something relatively new: a demand for reparations. In this case, it's an all-caps, italicised insistence that Bungie "give us back the cut content for free".

Is this all BioWare's fault? In the fullness of time, we may look back on the furore over *Mass Effect 3* as the point when the relationship between player and press began to break down and developers began to kowtow to a brutally vocal minority of players. BioWare as good as changed its game's ending; a fair chunk of the press railed against the "entitled gamer"; players were sated and empowered, but still oddly angry. You sense no one went home entirely happy, but everybody's actions were understandable. The studio would like to make and sell *Mass Effect 4* one day. The press would rather that development wasn't influenced by the people who spend all day calling them corrupt arseholes in their comment sections. Players want to feel like their voices are being heard, and that the big corporations' endless declarations of love for their fans and communities are about more than just good business.



Illustration marshdavies.com

Unless you invest in a company financially, you will never get a substantial say in how it manages its products

*Mass Effect* players had put dozens of hours into a series that let them at least feel like they were in control of the protagonist and the shape of their story, only to have that sense snatched away from them at the trilogy's very end. They had developed a real sense of ownership over their Commander Shepard, but that does not – OK, BioWare, *should* not – mean that they also have ownership over the game itself, or over the people who make it.

I'd like to think it's a problem that's unique to games. We've certainly seen plenty of it. Take the *Minecraft* players hitting out at Notch for selling up to Microsoft, thinking that since they had helped fund the game's development and had been kept updated on its direction, they should also have a say in how the company goes about its business. *Destiny* might be the work of hundreds of people instead of *Minecraft*'s handful, but the same applies: both games will expand and evolve for many years to come, and unless you invest in a company financially, you will never get a substantial say in how it manages its products. Creators want their players on board, but nowhere near the boardroom.

Yet it's thoughts of the bedroom, not the boardroom, that made me realise this is far from a videogame problem. We live in a world where simply being in the public eye apparently makes you fair game for the theft of your very private photos, for the release of your personal information, for death threats. With all that to look forward to, it's little wonder Notch chose to take his fedora and his $2.5 billion and ride off into the sunset, and that Activision and the like hide their secrets behind convoluted NDAs. Sooner or later, we'll all need protecting from the mob.

*Nathan Brown is* ***Edge****'s deputy editor. A hastily revised version of this column will release in FY15 as paid DLC*

#273

# H Y P E

## THE GAMES IN OUR SIGHTS THIS MONTH





Explore the iPad edition of **Edge** for extra Hype content

# Basic space




Ubisoft has itchy feet. The *Assassin's Creed* series has forever been restless, flitting from one city to another, and jumping across continents and through time with each release. This fondness for travel has brought with it an almost constantly shifting focus, taking the series from social stealth to bomb-making and then cannon fire. Ubisoft builds a new world every time and makes it bigger than before, usually aiming for breadth at the cost of height.

In that sense, *Assassin's Creed Unity* (p34) is a return to the original spirit of the series, its city-centre setting reverting the focus to sweaty palmed vertiginous ascents up the sides of tall buildings, and even intensifying it, since Paris is your lot. A new engine brings plenty of improvements, but the thematic steps *Unity* takes backwards are intriguing as well.

Sega's *Yakuza* series, meanwhile, has always seemed happiest at home. There have been historical spinoffs, and sojourns to Osaka and the Okinawa seaside, but Kazuma Kiryu has forever walked the streets of Kamurocho, the fictional Tokyo red-light district modelled on the real-world Kabukicho. Keeping the same protagonist in the same place may not be so adventurous an approach as Ubisoft's, but it is not without its benefits. We have come to know Kabukicho like the back of our hand, and to think of Kiryu as an old friend. In *Yakuza Zero* (p44), Sega takes both city and star back to the '80s for an origin story. David Braben is doing the opposite, and on p40 we check in on *Elite: Dangerous* as release draws near and it continues to expand outwards into the blackness of space.

Not all developers are preoccupied with space, of course. *Superhot* (p48) is a shooter in which time only moves when you do, your enemies' bullets frozen in place while you plan your next move. A remarkable free web game is shaping up into something truly special, proving that a small setting can, with a little free thinking, be as ripe with possibility as the largest open world.

## MOST WANTED

**Vane** PC, others TBC
Two of the team behind *Vane* worked on *The Last Guardian*, which is reason enough to be excited. But there are also shades of *Journey* in Friend And Foe's open-world adventure about a mysterious child with the power to morph into a bird.

**Batman: Arkham Knight** PC, PS4, Xbox One
If it sticks, *Arkham Knight*'s new June 2 release date does have one advantage: no 2015 summer drought. Who needs another charcoal-wrapped tube of raw pork, or vitamin D for that matter? We'll be closing the blinds to drink in the darkest entry in Rocksteady's Bat-saga.

**LittleBigPlanet 3** PS3, PS4
As if Stephen Fry's cheeky narration wasn't enjoyable enough, now Hugh Laurie has joined the cast as Newton, a "dastardly counterpart" who will attempt to undo Fry's character's good work. We're not quite as giddy about another Nolan North role, however.



HYPE

# ASSASSIN'S CREED UNITY

Ubisoft's lead series heads back to dry land and into a new generation

**Publisher** Ubisoft
**Developer** In-house (Montreal)
**Format** PC, PS4, Xbox One
**Origin** Canada
**Release** November 11 (NA), 13 (EU), December 4 (JP)

Whatever you think of the games it produces, the production line that serves Ubisoft's *Assassin's Creed* series is a marvel of process, coordination and engineering. The machine is prolific. That the publisher manages to organise its disparate studios to deliver a cohesive game each year that includes at least one entirely new city at a different point in history to its stablemates is a feat no other company can match – not with this kind of unflinching frequency.

For *Assassin's Creed Unity*, the first title in the series exclusively for new hardware, a great many hands were drafted in to build French Revolution-era Paris. It is, in fact, a game of two halves in the most basic sense: the cobbled streets and missions on one side of the Seine have been created by one studio, and those on the other side by another. The joins are, miraculously, imperceptible.

But there is an issue with such well-oiled and anonymous production machinery: the sense of the individual craftsmanship that goes into recreating a metropolis in all of its period glory can be lost. Perhaps it's for this reason that creative director **Alexandre Amancio** is eager to report that a single person built the cavernous cathedral at Notre Dame, the cultural centrepiece of the city and the game. In a virtual city built at one-to-one scale with the real Paris, this astonishing task took its creator an entire year to complete – 5,000 hours in total for the woman who meticulously placed each one of its stones and columns by hand, according to Amancio.

Such is the cost of building games of this scale today. "Up until this point in history, we were gated by the technology in games," Amancio says. "But now, for the first time, manpower, talent and time are the primary constraints. That becomes your boundary. We've had ten studios working on [*Unity*] to realise the game we wanted to make."

**The fruits of** that combined labour and the benefits of fewer technological boundaries are immediately obvious. Crowds are a clear leap forward – 18th-century Paris hums and bustles with a jeering, raggedy throng that both impedes new protagonist Arno Dorian's progress and provides a thicket into which he can disappear when being tracked by the local gendarmes, or other roaming hostile factions.

Typically, according to senior producer **Vincent Pontbriand**, these crowds are capped at 5,000 bodies, but in one scene that number jumps to 10,000. "The reason we limit the size of the crowds isn't so much to do with technical limitations as it is to do with the difficulty that the player might have with navigating a group of this size," he says. Slink Arno through the bodies and take to the ▶



Each assassin's costume attempts to combine the styling of 18th century France with the hood for which the order is known



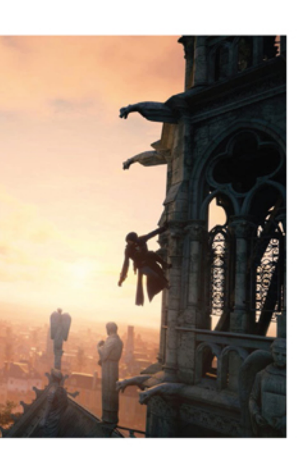
Senior producer Vincent Pontbriand



Improved parkour should help you see every feature as a potential perch, and avoid the disconnect between clambering and faster freerunning





The city is littered with handwritten letters to find that aim to add narrative intrigue and depth to the sumptuously drawn world

rooftops and *Unity*'s next technical marvel is revealed. This is the largest city in the series yet, comfortably bigger than the landmass of all *ACIV: Black Flag*'s archipelagos combined.

The skyline is one of proud spires, jutting edifices, and smoke curling into the sunset. Each district has a distinct character. There's the Halles, full of chaotic markets; the slums of Ventre de Paris; and Île de la Cité, which is packed with vast religious constructions. Behind this backdrop lurks the coiled tension of the period, the social and political upheaval made plain by public hangings, a menacing police presence, and the slogan-bearing banners ('La liberté ou la mort' – freedom or death) that hang from the rafters.

It's not only the courts and cathedrals of Paris whose insides have been decorated in revolutionary colours. One in four residential properties has also been fully decked out with an interior – Arno is able to leap through an open window, run through the top floor of a house and self-defenestrate on the other side as part of his parkour routine – and almost every major landmark in the game also has an interior finished to a high standard. "Being able to do all of this without loading screens is something we couldn't have done before," Pontbriand says. "The game would have had to be completely different if it was appearing on previous generations of console hardware."

> ***There's a sense that you can run and climb anywhere, rather than along funnels***



Multiple gangs and factions roam the unstable streets. At times they will attack one another, leaving you to slip by the scrum undetected

**Working at such** a large scale brings problems beyond interior decorating. "The more realistic and complex you make something, the greater the risk that you expose its limitations," Amancio says. "When you have crowds of this kind of scale, you expect them to behave like humans. That puts tremendous pressure on the AI team. That in turn pressurises the performance team, [since] every time you have an AI running onscreen, the game's performance is affected." The limitation then becomes one of balance. "The skill is in an organic process of balancing ambition with reality in order to figure out what to push and what to dial back."

The changes to the architecture come with some major amendments to the way in which parkour works. The introduction of a 'parkour-down' button – which allows Arno to control his descent from the rooftops rather than being forced to leap into a hay cart – is a surface-level change, but the underlying system has undergone a great overhaul. In particular, lateral movement when climbing the exterior of buildings is far smoother.

"In previous *Assassin's Creed* titles, the parkour was achieved by using two separated systems that, in truth, didn't interact all that well," says Amancio, who also led the team on 2011's *Assassin's Creed Revelations*. "There was the 'climb' mechanic, which allowed the character to slowly find hand- and footholds based on a 30cm grid that was overlaid onto the environment. Then there was the parkour mechanic proper, which allowed the character to string together more dramatic manoeuvres by, for example, leaping from a small crate to a large crate to a pole, and so on."

The parkour system was designed to work within 'highways': long series of objects that would encourage fluid traversal. But as soon as a player left the pathway, the game would switch to the more plodding climb mechanic. "Flow is lost and there's a grinding of gears as you switch between the two," Amancio says. "Our main goal has been to bridge the gap between those two systems in order to create a more consistent flow effect. We've had a dedicated team working to ensure that any architectural element can be perceived as a parkour 'ingredient' by the system. Beneath the hood, the system predicts what you might do next – it needs to do this because the control system is so simple. It tries to be prescient in order to make those paths and decisions ahead of time to create fluidity."

The effect is striking. While there is more of a learning curve to how you use the various inputs to traverse the city, once mastered, there's a sense that you can run and climb anywhere, rather than along the designers' funnels. This feeds into the team's desire to encourage greater exploration in Paris – something that, Amancio says, the series has unexpectedly failed to do in the past. "In ▶



## Tablet tableaux

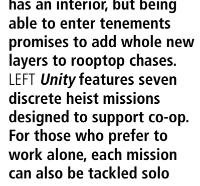
*Unity* is accompanied by the most fully featured companion app yet released by Ubisoft. The app, launching on iOS and Android alongside the game, facilitates synchronous play by way of a realtime interactive map that eliminates the need to pause the game. It also allows for asynchronous play with a series of brotherhood side missions. Here, you are able to hire assassins, develop their stats and abilities, and take assignments, which unlock no fewer than 63 unique pieces of equipment and rewards. "As you discover new locations in the main game, you unlock new missions in the app," explains associate producer **Andrée-Anne Boisvert**. "You can tweak your gear and loadout while away from the main game, and even place map markers that will be ready for you next time you return."











TOP LEFT **Each assassination sequence revolves around one specific target. During the mission you learn what your target has done to deserve your attention.**
TOP RIGHT **Not every building has an interior, but being able to enter tenements promises to add whole new layers to rooftop chases.**
LEFT ***Unity* features seven discrete heist missions designed to support co-op. For those who prefer to work alone, each mission can also be tackled solo**





FAR LEFT **Combat has been rebalanced in such a way as to deter direct conflict; the team hopes to encourage a stealthy approach by making swordplay messier than ever.**
LEFT **Story missions can be approached in a nonlinear order, although a set path is encouraged by way of specified difficulty ratings**






previous titles, we'd notice from the heatmaps we'd generate to show where players were spending time that there would be hotspots of activity, and low density everywhere else," he says. "People were not playing an open-world game so much as playing a linear level within an open world." This racing between mission markers was so pronounced that Amancio claims the team could have placed invisible walls all over past cities and most players would never have noticed.

*Unity*'s developers reached the conclusion that the problem derived from a conflict between the setting and the drama. The goal of a sandbox is to have players relax and explore, which is at odds with a narrative arc that's constantly pushing you forward. There is also the argument that the series' busywork can be overwhelming – an *Assassin's Creed* map is often a mess of icons that indicate treasure to collect, snippets of narrative to uncover, and collectibles. It is, perhaps, no wonder that many stick to the main drama as a way to make it through all the distractions.

> ***"For the first time, players are treating the city like a world and not a series of levels"***

"Games like *Watch Dogs* have been perceived as overwhelming," Amancio says. "They reveal everything on the map. The issue with that is you're telling players that the space between icons is essentially blank. That breaks the illusion of the open world. One of the ways we try to tackle that is balancing what we show on the map, and what we hold back to be revealed as people explore."

Another solution comes in the mission structure, which is more freeform. It will, in fact, be possible to take on missions for which Arno is ill-equipped. "We mark these with a difficulty sign," says Pontbriand. "The player is able to tackle a challenging mission, but they are equally aware that it will be beneficial to do some other things in the city in order to improve their equipment or skills first. The new system is trying to expose rather than impose." Amancio believes that the new system has empirically been successful: "When we looked at the first heatmap from Paris, it looked like pure chaos," he says. "For the first time, players were treating the city like a world and not a series of levels."

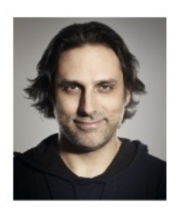
**Will there be** enough variety, though? *Black Flag* was celebrated for its seafaring piracy, but there is no such headline diversion in *Unity*, which takes place entirely on land. The team believes the variety is more subtle, but no less meaningful. Missions now reward more inventive means of assassinating a target, for instance. In one scene you must kill a mark at a sermon in Notre Dame. It's possible to air assassinate him with a blunt drop from the cathedral's rafters, but if you take the *Hitman*-esque approach of murdering him while he sits in the confessional box, you'll be rewarded with useful information you wouldn't have received any other way.

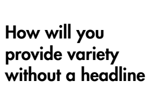
Combat has been made more punishing – you can no longer counter-kill indefinitely – and Pontbriand says that drawing your sword should only be "a last resort. There are neat tricks to deal with a lot of guards, but it's deliberately tough." Instead, Arno's stealth abilities have been powered up to encourage a more considered approach.

Away from the main missions are murder investigations in which Arno gathers clues at a crime scene in order to make an accusation, losing points for a wrongful charge, and the Café Theatre, *Unity*'s take on *ACII*'s villa, with cafés that can be purchased, furnished, used to generate income and franchised. "Every mission, every heist, every murder mystery and treasure hunt gives you money, weapons and gear," Pontbriand says. "This empowers you to approach situations in different ways, because it all feeds into the same loop."

While *Unity* is a game with a predestined story to tell, Amancio hopes that its network of interlocking systems will generate personal tales for each player. "We have hundreds of contracts and side missions so that even our team members are constantly finding new stories," he says. "That creates a unique narrative for each player in terms of their route through the game. But when you add into that a layer of unscripted chaos, I think the most interesting stories will turn out to be those that the players tell." ■

## Q&A
### Alexandre Amancio
Creative director





**How will you provide variety without a headline feature like *Black Flag*'s seafaring?**
The idea with *Unity* is to overhaul the core of the game, rather than to introduce new satellite features. The bet we made is to provide a densely packed city filled with activities that aren't side missions, but are instead intimately woven into the core loop. This, I believe, leads to a richer and more rewarding game. Then there's the variety in the narrative. Not everything is a kill mission. We have one mission about Napoléon's first date with Joséphine [De Beauharnais]. Combine that with the layer of chaos in terms of dynamic, unscripted events in the game and there's a huge range.

**The act of climbing to the highest point in an area in order to reveal the missions in the vicinity now features in all Ubisoft's open-world games. Is it overdone?**
The viewpoint in *Unity* is still useful because it allows us to pull back the camera to show off the city and make it more rewarding. We've tweaked the system, [because] we're now not revealing everything on the map, too: it's a tool for comfort, but a lot of stuff must be discovered through exploration. In terms of what might be the next 'reach high point' mechanic, I believe that the way in which we structure the game and how missions are accessed is a game-changer. It could become essential.

**Why have you decided to make the Café Theatre so central to the metagame?**
The Café Theatre played a hugely important role in the Revolution. People used to go to these bars to drink and classes would mix. As a result, there would be an exchange of ideas that brought about the scientific and literary revolution in France. Our version of *Black Flag*'s collectible sea shanties are political speeches, political plays and so on. The idea is to draw people into your cafés in order to generate more money. You can open up new satellites across town, a Revolution-era form of franchising. We wanted to remove the lines between minigames. They open up story missions and it changes the nature of the [ctiy's] ecosystem. Our crowd is systemic, you see. So if you alter the formula of a district, then the way that the crowd spawns archetypes is different: you might have more allies and fewer factions. In this way you can affect the sociopolitical makeup of the city.









ABOVE **In co-op, each player earns income for completing the mission, as well as an additional bonus (of up to 200 per cent) for how well they individually performed.** RIGHT **Historical figures make appearances throughout the storyline, including a spirited performance from the Marquis De Sade**



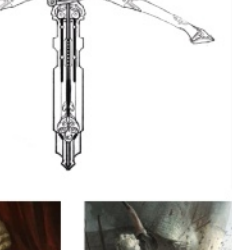
# Design showcase

The key players and new tools that will drive *Assassin's Creed Unity*'s bloody revolution

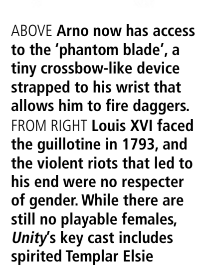








ABOVE **Arno now has access to the 'phantom blade', a tiny crossbow-like device strapped to his wrist that allows him to fire daggers.** FROM RIGHT **Louis XVI faced the guillotine in 1793, and the violent riots that led to his end were no respecter of gender. While there are still no playable females, *Unity*'s key cast includes spirited Templar Elsie**












# ELITE: DANGEROUS

## Exploration, degradation and truck stops come to Frontier's expanding universe

| | |
|---|---|
| **Publisher** | Frontier Developments |
| **Developer** | In-house |
| **Format** | PC, others TBC |
| **Origin** | UK |
| **Release** | 2014 |

Like space, *Elite: Dangerous* is currently defined as much by what's not there as what is. While the promise of planetary landings, firstperson exploration and ships with multiple crew members are all on the to-do list, they're still a way off. Instead, Frontier is taking smaller steps, building out from ship-to-ship combat in painstaking detail and with remarkable self-discipline.

"Making a game with all this complexity is a huge challenge," Frontier CEO **David Braben** tells us. "We've got 100 people working very hard and working long hours to make this game possible. You can see just how much we've put in over a short period of time, and that's a testament to all those people."

The second beta, launched at the end of September, introduces yet another raft of new features. The most familiar of these is combat ratings, which start at Harmless and top out, naturally, at Elite. But there are also now per-system and per-faction reputations that will influence local law enforcement's attitude towards you as well as the prices you'll pay for goods or weapons. And there's an in-game news feed, GalNet, which reports on events from around the galaxy.

All of this would be useless without the ability to explore, and so Beta 2 opens up 570 star systems (which, according to Frontier, occupy a daunting 381,033 cubic light years) for players to seek out, discover and chart, and any potentially valuable data they collect can then be sold on for profit. The game's scope has grown exponentially from the combat scenarios that made up its alpha, and it continues to expand at pace.

**Despite the sheer** scale of the project, Braben maintains the air of a man with a watertight plan of action. "The main thing is choosing what to put in the game, and doing it in the right order," he says. "For some things, it doesn't make sense to do them before others. Obviously, you can't have exploration without something to explore! So even though we have known that a lot of people want to do that, we waited."

The plan is opening up the game piece by piece, leading to all manner of unexpected occurrences. "As we layer on more and more richness, we see more emergent behaviours, even at this early stage," Braben says. "We hadn't necessarily anticipated the off-the-wall ways that people are using each new system we put in."

One example is smuggling, which has been enabled by the game's stealth mechanics, despite not being an intended part of the design yet. The ability to close your ship's vents and jettison a heat sink in order to disappear from the radar has been in from ▶





FROM TOP **Frontier founder and CEO David Braben; Eddie Symons, producer**



The latest visual pass has made *Dangerous*'s appealingly utilitarian ships even more attractive. By keeping an eye on their vents and thrusters, you can predict opponents' manoeuvres during dogfights








"Beyond the frontier of explored space, it's implicitly anarchy, because there is no law," says Braben. "This is why exploration is a many-edged sword – there are lots of up- and downsides to it"

the start, but some enterprising players are taking advantage of it to trick the game's AI.

"There's this wonderful video where someone is caught smuggling outside a station and gets stopped and searched, and then attacked," Braben says. "They end up in a fight and their contraband goes all over the place. This other guy just waits, goes super-cool so you can see all the ice on his screen and then, flying with flight control off, gradually, slowly scoops the cargo. The police are a long way away at this point, so he's doing this right in front of a space station! He manages to get all this cargo and then just gradually drifts off away from the station. And then he turns, does a burn aiming precisely at the entrance slot, and turns his engines off again. He just flies in and they don't spot him. And it's just great, because it's quite hard to do, and I'd never imagined someone could dock without being detected."

**A more forceful** way to acquire others' items is by using the newly introduced Hatch Breaker limpet missile. Once deployed, this homes in on an unshielded ship's cargo hatch and forces it wide open. Braben compares it a highwayman encounter, as opposed to the all-out piratical slaughter of a space battle.

"It's unashamedly a game mechanic," he says, "but it's also quite fun, because it extends the battle. You get very attached to your ship, but you're not generally attached to your cargo, and so you go, 'Oh, bugger, they've got that. I'm just going to head off.' And then the pirates have the choice: if they follow you, finding the canisters that have been released already will be quite difficult the farther away they get. So there's a nice balance for both sides. One of my concerns at the start of this was PVP versus PVE. In my view, PVE is great gameplay, and the *threat* of PVP is really exciting. But you don't want a big percentage of the game to be PVP, because it ends up being a fairly miserable experience. So what we're trying to do is to get a little bit of PVP, and make it interesting and often nonfatal."

While space stations won't necessarily protect you from wily players, they do at least provide refuge from the dangers of deep space. The huge construction used in the docking tutorial has now been joined by two smaller classes of port. The Ocellus is built from the same modular parts as its larger cousin, and will turn up in new systems as their populations grow. Before that, though, Outposts ("like those fuel stations you see in the middle of the desert in the States, where there's one guy who's probably been sitting there and you're the first person he's seen all day") will appear to refuel and service ships exploring the outer reaches of the charted galaxy. Their small size will mean that larger ships won't be able to use them, however.

And that could be a problem if you haven't seen a place to stop in some time, because ships now suffer from wear and tear. Though predominantly the degradation will be visual, unloved ships will eventually start to suffer in performance terms too, as systems become less efficient or begin to outright malfunction. You can carry a repair kit with you for just such an occasion, but that will take up

***Once deployed, it homes in on an unshielded ship's cargo hatch and forces it wide open***

valuable cargo space – a good reason to bring a friend along on deep-space ventures and to share the spoils of whatever you discover.

Although it was hardly needed, there's even more motivation to explore this universe thanks to a new graphics pass that's improved almost every aspect of the game, upgrading ships' cockpits and shimmering icy comets alike. "There are a couple more tweaks we want to do," producer **Eddie Symons** tells us, "but for the most part the visual quality is pretty much where we want it now. If you look back at some of the older builds, the quality of the visuals in the night skies and planets have moved on so much. I wouldn't know how we could make it much better, really."

It looks remarkable on the 4K TV we play it on, but all of that beauty is compromised by low resolution when we slip on an Oculus Rift. Frontier has yet to get its hands on a Crescent Bay unit, however, so the VR presentation will hopefully catch up before long. But that, like so much else here, is just one part of a dazzlingly ambitious plan. ■







Factions hand out missions and rewards to the pilots who do jobs for them, but your standing with the others may depend on the nature of your dealings



## Terra incognita

While Frontier is keeping Beta 3, due in late October, under wraps, Braben tells us that it will introduce the ability to own multiple ships and add mining. But beyond that, there are even greater plans. "If a planet's got life on it, what are we going to do? Implement *GTA* with cities and that sort of thing? It's not something that's going to come instantaneously, but the various things in our armoury are landing on the surface of a planet, being able to deploy a wheeled vehicle and drive around, to drop cargo on a planetary surface for later retrieval, getting out of your ship and walking around in firstperson, and interacting with other players. You'll see another ship and, theoretically, be able to run up the ramp and take it."





TOP **Larger ships tend to bristle with powerful weaponry, but blind spots can be exploited if your piloting's up to scratch.** ABOVE **One planned addition to the game is the ability to deposit cargo on planets' surfaces like buried treasure, leaving a beacon to guide you for later retrieval – assuming that your cache hasn't already been raided.** LEFT **Small stations and the equivalent of truck stops will occupy the shifting frontier, with larger constructions following once trade or mining has been firmly established in a system**

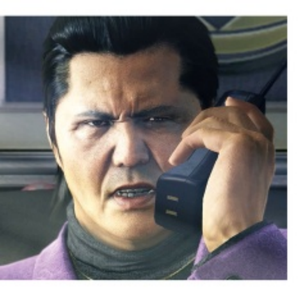
TOP **Asteroid fields create stealth opportunities, since you can use the floating rock to provide cover, allowing you to get in close to ships without being detected.** MAIN **Piloting your craft into one of the docking bays of an *Elite: Dangerous* space station for the first time is memorable, conjuring a real sense of a bustling port**



**Publisher/ developer** Sega (Yakuza Studio)
**Format** PS3, PS4, Vita
**Origin** Japan
**Release** Spring 2015





# YAKUZA ZERO

## Excess rules in Sega's paean to Japan's financial peak

*Yakuza Zero*'s slogan promises "Money, women and violence." While these words could be applied to any *Yakuza* game, everything is turned up to 11 in this prequel, which sends its cast back to 1988, the middle of Japan's economic bubble.

"What you see in the trailer is really how it was at the time – it's not a parody," says series creator **Toshihiro Nagoshi**, who was in his early 20s in 1988. "For example, the part in the trailer where people are waving ¥10,000 notes in the street to flag down a taxi really used to happen. I once saw a guy in a drinking establishment flash open a suitcase full of money to impress the ladies. That's the sort of time it was."

In an extended trailer at September's Tokyo Game Show, Sega showed off a young Kazuma Kiryu, a man yet to be humbled by the prison stretch that transformed him into the anti-hero we know today, as well as a mild-mannered Goro Majima, who's running a hostess club. "They're both still young outlaws," Nagoshi says. "Kiryu is the violent type and he likes to get his hands dirty, while Majima is earning a comfortable living and is quite well adjusted. He's quite the opposite of the Majima fans know today."

**The story traces** the two gangsters' early dalliances with the world of organised crime. Majima in particular has a lot of change ahead of him, triggered when unpleasant clan politics land him in the unwanted position of having to make his first kill. He's destined to become a ruthless killer, so the sight of him trembling as he attempts to dispatch his target is captivating. And when he discovers his mark is a blind woman called Makoto Makimura, he ends up rescuing her. (Among



ABOVE **In period style, the Tokyo red-light district of Kamurocho is packed with ostentatious sex shops.** BELOW LEFT **Goro Majima begins this game as an ex-yakuza who is told he can return to the Tojo clan for a deadly price. His unravelling life promises to be a major draw in *Zero***





The streets of Sotenbori in Osaka are home to the Omi Alliance, of which young Goro Majima is a member





Toshihiro Nagoshi, series creator

the game's usual mix of sidequests, there will be 'escort battles', where Majima must protect Makimura by fighting off aggressors.)

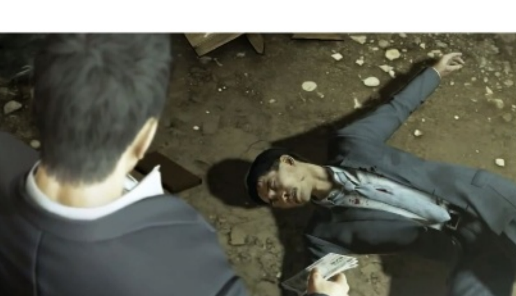
The series has visited the distant past before, but why specifically 1988? "I've always wanted to make a *Yakuza* prequel," Nagoshi says, "but after the first two games everyone wanted a third, and then a fourth, and the chance to return to the start of the story never came up. With next year being the tenth anniversary, it seemed like a good opportunity, especially since *Yakuza 6* will require a lot more time to make."

Nagoshi and his Yakuza Studio team seem to be relishing the setting too. Japan to this day has not fully escaped the economic depression that followed the bubble, and today young people face a grim reality of scarce employment, low wages, declining birth rates and social malaise. By contrast, the fictional Tokyo and Osaka red-light districts of Kamurocho and Sotenbori of *Yakuza Zero* are alive with gleeful excess.

Money is everywhere. Pulling off flashy moves in fistfights rewards you with bonus cash, which can be used to unlock new skills. Yen can also be made by playing the real-estate market or running an efficient hostess club, both deep management-sim minigames that can absorb countless hours of playtime.

You can drop some of that cash in the usual in-game arcade, which will include period Sega titles such as *OutRun*, *Hang-On* and *Space Harrier*. Nagoshi promises more, and teases that we may even see Mega Drives, perhaps a nod to the console's 1988 release.

At age 20, Kazuma Kiryu is a thuggish, low-ranking yakuza, and his three available fighting styles in the game will be scrappy and dirty to reflect his attitude and inexperience



Like *Yakuza: Ishin* before it, *Yakuza Zero* is being developed for both PS3 and PS4, with a companion app available for PS Vita. "We considered making it for PS4 only, but while the graphics and performance would be better, fewer people would be able to play it," Nagoshi laments. "It's still too early in the PS4's life to make an exclusive game for that system – and the same goes for Nintendo's and Microsoft's consoles."

*Yakuza* is a hugely popular brand, and many would surely fork out for new hardware if that was the only platform on which *Zero* was available. But Nagoshi doesn't see this as his problem. "That's for Sony to figure out," he laughs. "We don't make hardware any more, so our focus is on making great games that will satisfy lots of gamers."

Indeed, lots of gamers are about to get their first dose of the series, since *Zero* marks

***"What you see in the trailer is really how it was at the time – it's not a parody"***

the first *Yakuza* game to be translated into Chinese. Nagoshi hasn't ruled out an English release either, but China is a huge potential market for Japanese game makers. Now that foreign game consoles are allowed to be sold in mainland China, a fresh market of almost 1.4 billion new consumers is hard to pass up.

Despite this, the main audience for Nagoshi's games remains Japan. The market has grown ever more insular, and the games that generated the biggest buzz at TGS were domestic. Nagoshi foresaw this trend and made the first *Yakuza* game to capitalise on it; he certainly doesn't believe Japanese developers should chase global appeal.

"If anything, I think overseas publishers should make more effort to create games that will sell in Japan," he says. "Games from overseas are clearly high quality, but the ones that sell 300,000 or 500,000 copies in Japan are rare. They would be better off creating titles that are targeted towards Japan, and then cultivating a bigger market here for the games they are currently releasing." ■

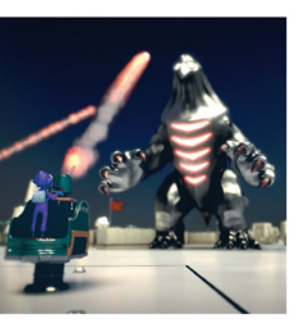


## Age gap

*Yakuza Zero* was not Toshihiro Nagoshi's only game at TGS. Also at the Sega booth was *Hero Bank 2*, the sequel to the 3DS brawler he devised to appeal to younger players, in which you collect coins scattered around a wrestling ring to pay for attack and defence moves. "The market for kids' games is extremely difficult to crack, and publishers such as Bandai Namco and Level-5 are excellent in that regard," says Nagoshi. "I think it's important to attempt something difficult and to learn as you go until you create a hit, rather than to be put off. We've learned a lot already from *Hero Bank*, and I'm sure we'll create even more IPs [that are] aimed at kids."




**Publisher** SCE
**Developer** Q-Games
**Format** PS4
**Origin** Japan
**Release** 2015



# THE TOMORROW CHILDREN

## Q-Games' PS4 exclusive is part sandbox, part social experiment

One complaint from those who watched the announcements during Gamescom and E3 this year was that so many of the trailers were CG renders rather than in-engine gameplay. But in the case of *The Tomorrow Children*, a sandbox game from Kyoto studio Q-Games, viewers were not seeing what they thought they were.

"At Gamescom, the trailer before ours was all CG, and I got a lot of comments from people saying they thought ours was CG, too," studio head **Dylan Cuthbert** says. That's one of the reasons Q will hold a public alpha for its strange new game from October 30 until November 12 in Japan. "It's mainly to test our systems and give people a taste. Hopefully, people will realise than that all the stuff in the trailer was realtime and dynamic, and not CG."



Q-Games founder Dylan Cuthbert

Cuthbert was involved in the early stages of both PS2 and PS3, creating tech demos and PS3's XrossMediaBar, so perhaps it was only natural that Sony's Mark Cerny would invite the creator and Q-Games to make a tech-focused game for its newest console.

"We're using 'asynchronous compute', which is a new term," Cuthbert explains in reference to *The Tomorrow Children*'s advanced visuals. "We use the GPU in PS4 almost like a very-high-performance CPU geared towards large volumes of data that are processed the same way. You can fire off all these calculations as you see fit, and then it all just slots in to get a huge performance increase."



The footage shown of the game so far is all realtime gameplay, Cuthbert says, and its Burton-cum-Laika-doll-like characters and plasticky excavatable islands look almost solid enough to reach out and touch, thanks in part to a trio of simultaneous antialiasing techniques for smoother lines and the use of cascaded voxel cone ray tracing to light them in a volumetric form.

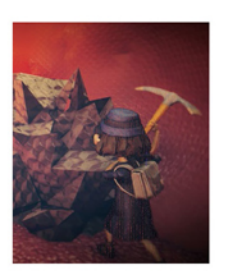
"It gives us a lot of subtle detail and a lot of information that you have in the real world," Cuthbert says. "It's subliminal, almost. As you dig a tunnel, it gets darker and darker, and you get the [light] bounces coming in from behind you – like, say, the sun is setting and you get all this yellow light bouncing into your tunnel."

The game was designed to take advantage of not only PS4's hardware but also its social features. It is set in a retro-futuristic world that has diverged from ours in the '60s or '70s, during the Cold War, when a calamitous Soviet experiment wiped most of humanity off the planet in an attempt to meld the race into one global consciousness. Players control clones created to rebuild mankind, digging for human DNA and other resources on mysterious islands and transporting them back to a communal town that runs on a system similar to Marxism. The concept was inspired by the DualShock 4 Share button.

**The final part** of the gameplay loop is that the towns face constant attack from Izverg monsters, so defences against these threats must be carefully maintained. Play is essentially solo, but also networked, with players briefly appearing in one another's games as they undertake activities together and then disappearing again.

Cuthbert describes the game as being a social experiment, and in the alpha he is curious to see how a group of 50 or 100 players on the same server will interact. Will they work together towards a common goal, or will they try to get ahead of everyone else?

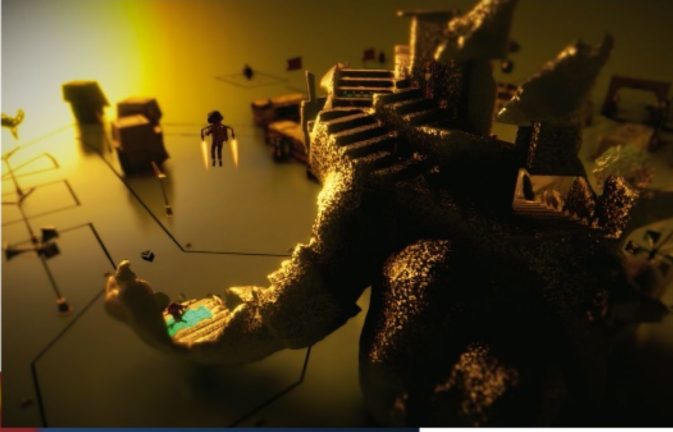
Q-Games' *PixelJunk* series was originally defined by surprisingly deep mechanics that appeared simple on the surface, but it has struggled to convey the concept behind its latest *PixelJunk* title, the conceptually complex *Nom Nom Galaxy*. From what we've seen so far, *The Tomorrow Children* also seems like a game that will require a lot of explanation before it clicks, though the alpha may help to crystallise the concept in the public's imagination. Whatever happens, this PS4 exclusive has great potential, in terms of its tech as much as its thematic core. ■



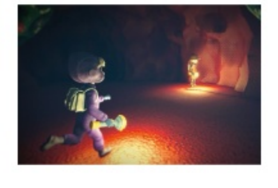
### What's yours is mine

Any game based on digging and building in a social setting is sure to be compared to *Minecraft*, which Dylan Cuthbert has endured many times already. But the gameplay in *The Tomorrow Children* is only superficially similar. Cuthbert says the mining element of the game was implemented partway into development as a way to use new tech created by Q. "One of our programmers developed the tech to do non-block-based diggable terrain. It's a different way of holding the data," he says. "So we decided to use that and changed the design to do so. That gave us some parallels with *Minecraft*. People coming from *Minecraft* will enjoy that side of it, I think, but it's a different kind of game."









TOP An advanced dynamic lighting system is key to the game's distinctive look. ABOVE The tunnels you dig exist in a persistent state, and other players can make use of them too. MAIN Weapons and other tools can be earned by trading food rations from the Ministry Of Labour, though you'll have to queue for more popular items



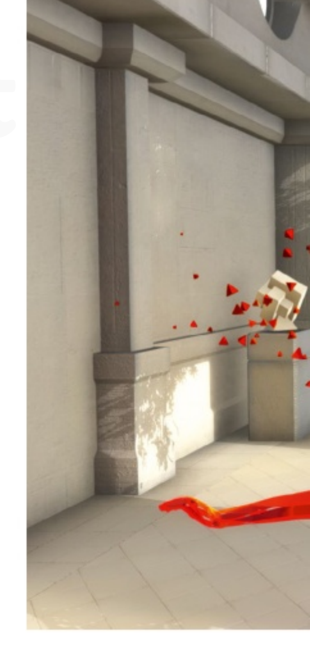
TOP The game's aesthetic draws influence from subversive late-'60s TV sci-fi The Prisoner and the minimalist future of Stanley Kubrick's 2001. RIGHT Treasure and resources are ample, but there is a limit to how much the player can carry in one trip







**Publisher/ developer** Superhot Team
**Format** PC, Xbox One (others TBC)
**Origin** Poland
**Release** June 2015





# SUPERHOT

## The Polish puzzle-shooter rethinking bullet time

At Gamescom 2014, *Doom* co-creator John Romero announced that he's working on a new firstperson shooter project, and also took the chance to voice his frustrations at the lack of innovation in gaming's most overexposed genre. According to the designer, we've "barely scratched the surface" of shooters. Perhaps he's never heard of *Superhot*, though, because the team behind it is carving out a deeper groove than most.

Originally developed in August last year as part of 7DFPS, a week-long game jam organised to find new interpretations of the well-worn FPS template, *Superhot* includes all the staple ingredients – enemies, guns, 3D environments – but has one monumental twist: time only advances when you move.

"When I first saw *Doom*, I remember thinking that games couldn't be any more realistic than this!" creative director **Piotr Iwanicki** says. "But I think there's still a lot to discover in firstperson shooters, and *Superhot*'s time mechanic enables you to do things that I haven't seen before in the genre."

**It certainly adds** an uncommon layer of strategy to combat. Being able to plan your movements through a room of enemies with such clarity has the capacity to deliver the kind of empowering, Hollywood-esque action sequences that are normally the preserve of thirdperson shooters such as John Woo's *Stranglehold* or *Max Payne*. But while the manner in which time passes is central to *Superhot*'s gameplay, Iwanicki doesn't want it to define the game.

"The time just adds this layer of things that wouldn't be possible without it, but it's not like it's the main focus," he explains. "For example, in our prototype, you picked up



ABOVE **If you don't move, bullets hang ominously in midair. Here, the player must work their way up the corridor while avoiding fire in order to grab the gun on the ground and retaliate.** BELOW LEFT **While guns are the main focus of combat, the latest trailer also shows the player wielding a sword, cutting down enemies as well as deflecting bullets with superhuman swipes**





Destructible environments clutter the clean lines with debris – the windows to the right here can shower you in shards of glass – while pixellated blood strikes a balance between stylised cool and chilling brutality



Superhot Team creative director Piotr Iwanicki

weapons simply by walking into them, just like *Doom* or *Quake* – an old-school way of doing things. Now, though, it works a bit differently, because you have to click on weapons to grab them. It's a very simple design, actually. It's not any more realistic, but together with the fluid time mechanics it becomes this little ballet of you looking in the direction of the weapon, picking it up, and then aiming. It's a tactile way of representing the action of picking up a gun."

And this seemingly modest evolution opens the way for the kind of gun battles that could have been dreamt up by the Wachowskis. "Imagine shooting a guy above you," Iwanicki says. "He dies, his weapon drops in slow motion and you run towards it and grab it out of the air. It's an awesome moment! Those kind of things work really well in our current build. There are a lot of those tiny details that are possible thanks to the time mechanic, but it's not like they're *based* on it; it's not like this game is an exploration of the time mechanic."

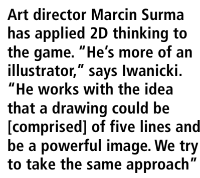
For that reason, don't expect the final game to include much in the way of puzzles. Despite its nontraditional pacing, Iwanicki sees *Superhot* very much as a fast-paced shooter, or at least one that will be played in intense bursts. "We could go with this very tight puzzle design like *Braid*, but we focused more on action while providing those slow-motion moments that would be impossible in a normal shooter game. So it's not a slow-motion shooter, but instead a game that you can play however fast you want. It's about finding the right speed for you and, of course, doing awesome shit in slow motion!"

Indeed, Iwanicki feels *Braid* buries the simple joy of platforming too deeply beneath its elegant puzzle designs and he doesn't want to lose sight of *Superhot*'s shooting core. But that doesn't mean you have to solve every problem with bullets. Though originally a by-product of the need to provide challenge in a game where headshots are trivial, the limited ammunition of the prototype build has inspired a blunt tactical option.

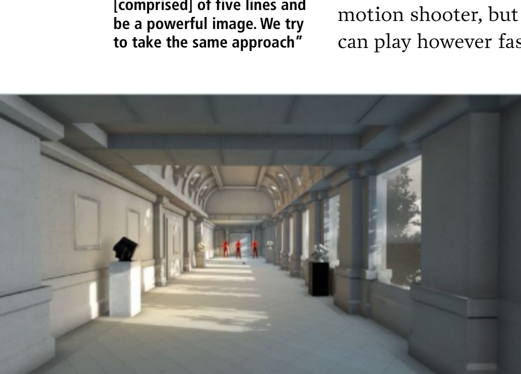
"You have guns that you pick up and then you throw them away when you run out of ammo," Iwanicki explains. "So expanding on that idea, you can now throw that gun at your enemy and stun him. You can even throw a gun at an enemy's bullet and deflect it! All these little tiny interactions in *Superhot* become valid tactical choices. It won't always work, but it's the right choice in some places."

**"His weapon drops in slow motion and you run towards it and grab it out of the air"**

One thing that won't change is the game's look. While the team has experimented a little with more realistic aesthetics, the stylised minimalism of the browser version worked so well with the stylised gameplay that the team has decided to stick with *Superhot*'s original approach. "When we tried to make it a bit more high fidelity, it didn't really work well," Iwanicki says, "because the simplistic style provides this springboard for imagination." He does, however, admit that the spaces in the demo were slightly too abstract. "Now, we have a compromise. We want to make you feel like you're in a real place, but we always try to not show you too much. For instance, an elevator is simply a small room with a door and maybe a rail. You see those very simple [elements] and understand that you're in an elevator. And we're trying to achieve the same for all spaces. I'm surprised that not many other teams are actually doing this sort of stuff – I think *Superhot* proves that it really works." ■



Art director Marcin Surma has applied 2D thinking to the game. "He's more of an illustrator," says Iwanicki. "He works with the idea that a drawing could be [comprised] of five lines and be a powerful image. We try to take the same approach"





## Slide action

Along with visual identity and weapon tossing, Iwanicki's team has also been experimenting with new control options. While the Unity-based prototype used a mouse and keyboard, the analogue inputs of a controller profoundly change the way that a game all about movement can be played and offer far more nuance than the digital WASD alternative. Iwanicki tells us that he and his team have enjoyed seeing the different playstyles that the two control methods bring to the game, but they're confident that PC users sticking to the original mouse-and-keyboard controls won't feel like they've been lumped with a compromised version.




**Publisher/developer** Capcom
**Format** 360, PC, PS3, PS4, Xbox One
**Origin** Japan
**Release** 2015



# RESIDENT EVIL: REVELATIONS 2

## Recurring episodes for gaming's virulent strain of horror

Since the mainline *Resident Evil* series appears locked in a feedback loop of escalating bombast with the Paul WS Anderson movies, it falls to the *Revelations* spinoffs to maintain its survival-horror roots. True to form, ammo is in short supply throughout, and you'll also encounter a number of environmental puzzles along the way. But defying horror conventions, you won't be entirely alone. While you'll start off as Claire Redfield, Moira Burton (daughter of STARS member Barry Burton) accompanies you throughout, and a single button tap switches control between the two.

The pair now work for anti-bioterrorism organisation Terra Save, but during Moira's welcome party both are knocked unconscious when the building is stormed by unidentified armed forces, and awake in an abandoned, dilapidated and very grey prison. After we rescue a panicked Moira from her cell, we learn that the pair have different skillsets.

In a setup that goes one step further than *Doom 3*'s infamous torch-or-gun choice, *Revelations 2* insists that the tools are so mutually exclusive they must be wielded by separate characters entirely. Claire's the weapons expert, handling gun duties and also capable of doing some serious damage with her melee attack. Moira, meanwhile, has a pathological fear of wielding guns and instead sticks to the torch and a crowbar.

Her beam of light serves two purposes, allowing you to discover useful items such as ammo and herbs by highlighting them with a twinkle of light, and dazzling enemies at close range. This temporary blinding lasts a couple of seconds and proves a useful crowd-control technique if used well, allowing Moira to get in a panicked crowbar whack, or Claire to more easily line up a headshot.

When you switch characters, the game's AI takes over control of your partner, who is then rendered invincible. A brief hands-on does little to allay fears of how well this will be balanced, but dealing with three or four enemies feels challenging enough, even with invulnerable backup.

Much of that challenge is down to *Revelations'* new enemy type, the Afflicted. Faster and more intelligent than a shambling zombie, they'll quickly surround you, can use blunt-force weapons, will climb ladders to give chase, and can leap across gaps to reach you. They're beefier than their decomposed cousins, too, and tend to take two or three headshots to put down. The ability to dodge out of the way in any direction gives you more options during encounters, and a shotgun we find later on deals some one-shot kills, but dealing with groups of the Afflicted remains a fraught experience. That dodge move becomes essential later, when a colossal boss wielding a cobbled-together axe-cum-cleaver attacks us while we wait for a cog mechanism we've just rebuilt to open a door. Rather than attempt to take him down, or the other Afflicted who flank him, we spend a couple of minutes on the run before dashing to temporary safety.

**For a game** that Capcom is positioning as a more traditional *Resident Evil* experience, there's a fair amount of fresh mechanical thinking on show. The biggest change of all, however, is in distribution: the game will be delivered episodically in weekly instalments, with a disc release of the full package after the finale. But despite the new ideas, the game already feels dated. Ponderous controls and muddy visuals call to mind the negative aspects of the era that Capcom is trying to celebrate. And surely by now only super-fans still care about the fate of Claire Redfield, especially when the dialogue's this clunky.

But more worrying is the fact that the familiarity of *Revelations 2* undermines its attempts to scare, the main source of dread being the thought of dealing with enemies with a dwindling ammo cache. With so many studios working to find new ways to unnerve, this series' relevance to the modern horror fan is increasingly questionable. ■



### Women's world

The *Resident Evil* series has had plenty of female characters throughout its history, but *Revelations 2* is the first entry to have two female leads. Both are equally important to the story, and both freely playable, but Redfield is clearly defined as the protagonist thanks to her more capable skillset, while Burton plays more of a support role by locating pickups and dispatching downed enemies with her crowbar. And while Redfield remains cool-headed in the face of waves of mutated enemies, Burton is audibly afraid and less accepting of their predicament, setting up a potentially engaging dynamic between the pair.





TOP The environments are murky and dilapidated, but they feel rather samey. ABOVE During one awkward, and since removed, dialogue exchange, Moira asks, "What the cock is going on?" It's probably not the wording most people would choose when reacting to the violent, gore-streaked world the pair are trapped in. MAIN The torch can dazzle multiple enemies at once, briefly taking them out of the fight while you prioritise the most dangerous threats

TOP Both Claire and Moira wake up to find electronic bracelets around their wrists which change colour depending on some condition that Capcom is keeping under wraps for now. RIGHT The Afflicted aren't zombies in the traditional sense, but crazed humans who have been driven to aggression through some unknown, macabre process


XBOX ONE

# #273




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56

78

86

70

96

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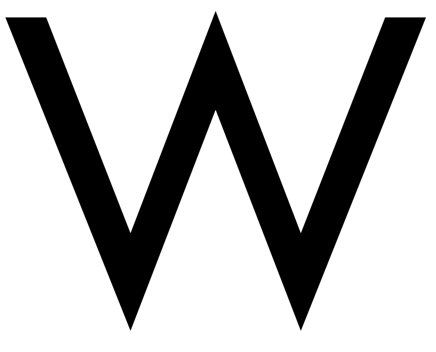


**Game** Rime
**Publisher** SCE
**Developer** Tequila Works
**Format** PS4
**Release** TBA



How a small Spanish studio is striking out into the wilderness alone to create deeply stylish PS4 adventure Rime

By Nathan Brown




hen he was eight years old, **Raúl Rubio** got trapped in a cave. He grew up around the mountains of northern Spain, and at the time was exploring a system of caverns near the town of Zugarramurdi, where witches supposedly once met for occult rituals. (True or not, several of the accused were put to death by the Inquisition in the early 17th century.) Rubio – too young to be scared by a place with such a murky, bloody history – ventured deeper and deeper still. Then it got dark, and he realised he was lost.

"I was in the middle of a cave, it was pitch black, and of course when you are a child you are not aware of how dangerous things are," he tells us. "I tried to get out, just because I thought I could. I had a camera – a typical roll camera from the '80s. I used the flash to take a picture, so for a brief second I could see the cave, and then I walked blind until I could take another. I got out, but I can tell you, the stalactites hurt a lot."

It is little wonder that Rubio would grow up to make videogames. He found himself faced with a tricky problem in an unfamiliar place, and used the tools at his disposal to devise a solution. It is even less surprising that now, as CEO and creative director at Madrid-based studio Tequila Works, he is making *Rime*, a staggeringly pretty game about a young boy who is stranded on a mysterious island. It is a deeply personal project, and not just for Rubio. Its setting is inspired by Spain's Mediterranean coast, where art director **José Luis Vaello** grew up and many of Tequila Works' staff would holiday as children. Its protagonist is universally relatable; we were all eight years old once, after all. But Rubio is the driving creative force, and there is much more of him in *Rime* than just his cave story.

It is – oddly, given its sunshine-drenched look – a game about loss. While it's a concept to which everyone can relate in their own way ("To a child," Rubio says, "losing a ball is a tragedy"), the musings on it here were sparked off by Rubio, a poor swimmer, almost drowning at sea many years after his Zugarramurdi misadventure. He thought not of his impending death, but of what he was leaving behind, and he worried briefly about who was going to get the car out of the garage, because only he knew where the keys were. It is also a game about fatherhood, about guiding an innocent child through a strange world; when we meet, Rubio's first child has just turned nine months old. Some of *Rime*'s more outlandish ideas have come to him in the hazy delirium of newborn-induced sleep deprivation. The team will tell him it can't be done, then works tirelessly to figure out how it can.



**Even without Rubio's** frazzled design dreams, *Rime* is a problematic project. The scant few minutes of footage shown in the game's only two trailers to date have seemed rather light on detail precisely because this is a minimalist concept. There is no combat, no tutorial, no dialogue or helper text. You are an eight-year-old boy on a strange island, and what happens next is up to you.

"From the very beginning, we wanted to make a more free experience," Vaello tells us. "The games of today usually try to be over-helpful, to tell you where to go, what to do, what buttons to press. The feeling you get when you solve a puzzle without any kind of guidance or suggestion from a game is much more satisfying than when you're given too many clues."

That kind of game is a lot harder to make than it sounds. "As a designer, you're always thinking in terms ▶



**Tequila Works' modest size is vital to Rubio's desired way of working, which involves close collaboration between skilled devs with loosely defined roles**

01 **Raúl Rubio, CEO and creative director.** 02 **José Luis Vaello, art director.** 03 **Sandra Christensen, senior lead animator.** 04 **The tower seen here is no mere landmark, and will react to your presence**

01



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04

**"WE DON'T WANT TO PUT A RESTRICTIVE STORY IN FRONT OF YOU AND MAKE YOU FEEL LIKE AN ACTOR"**

of rules, and mechanics," Rubio says. "Even if your game has no scoring system or levels or completion statistics, you are always trying to make mechanics... But in this game, the rules are not the rules that you know [from the real world]. Everything in the game can be explained; we're using concepts you can understand, like sound, or how light works. But you need to learn the island's rules. We don't want to put a restrictive story in front of your eyes and make you feel like an actor. We want you to be the one that is discovering the island, right?"

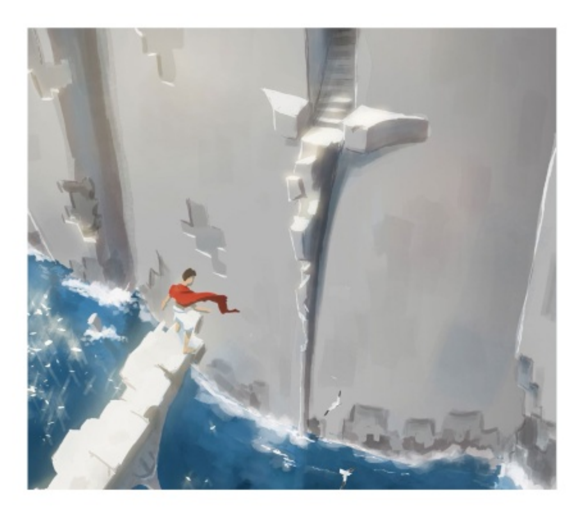
It's an ethos that requires meticulous, unrelenting control over the kind of signposting that other games tend to reserve for specific moments. The game's visual and audio language have to be perfect, with the environment, its framing and Tequila Works' dynamic score gently nudging you along without being too obvious about it or fracturing the island's mystery and sense of place. When we first pick up the pad and guide the boy inland from the beach, it's the flight path and call of a seagull that draws our attention. We follow, the music building, pressing DualShock 4 buttons as we walk to get a feel for our moveset. It doesn't take long. Cross makes the boy jump. Triangle makes him shout, a domed outline flowing out a few feet around him to show its range. That's our lot. It's sparse, sure, but the closest we're getting to a tutorial. So when the seagull leads us to the demo's first puzzle, we know that the solution lies in one of those two buttons.

It's the shout. A large, golden sphere is embedded in the ground, glimmering in the midday Mediterranean sun. Around it, half a dozen monkey statues are placed in circular formation, facing the sphere. The seagull has landed on one; we approach, shout, and the statue glows. Shout at the sphere and it bounces off, lighting up all the monkeys at once, a tower twisting up out of the ground. We start to climb, jumping for the first few handholds until we realise there's no need to. "Unlike a typical open world where you run and jump everywhere, in this game you climb a lot," Rubio says. "We don't want the experience to be frustrating – quite the opposite, since we want you to have fun. And this is the beginning of the game, so it wouldn't make any sense for us to kill you. You're a child, for God's sake." Later, when the boy's hands are pecked loose from a ledge by a suspiciously protective seagull, our fall is broken by the sea, and we're but a short distance from the beach.

When we do reach the summit of the first spire, the camera pulls around and out to show a tower jutting high up in the sky, and we know where we're supposed to be heading next. This is a 3D open world, and while you usually have control of the camera angle with the right ▶



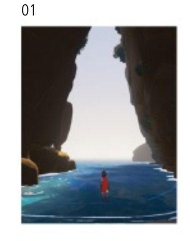
**The team hints the first monkey puzzle will be more complex in the final game. Tequila Works is still in the content creation stage, and is working on NPC wildlife when we visit**



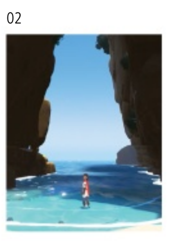
**Tequila Works may be bending the rules, but don't expect to be able to leap this far. That may change with a little careful camera adjustment, however**

01–03 **The day/night cycle, and the boy's ability to manipulate it, is about more than solving puzzles. Distractions and events off the beaten track will only appear at certain times of day, for instance**

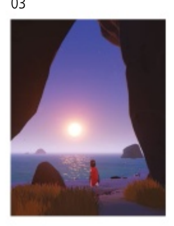
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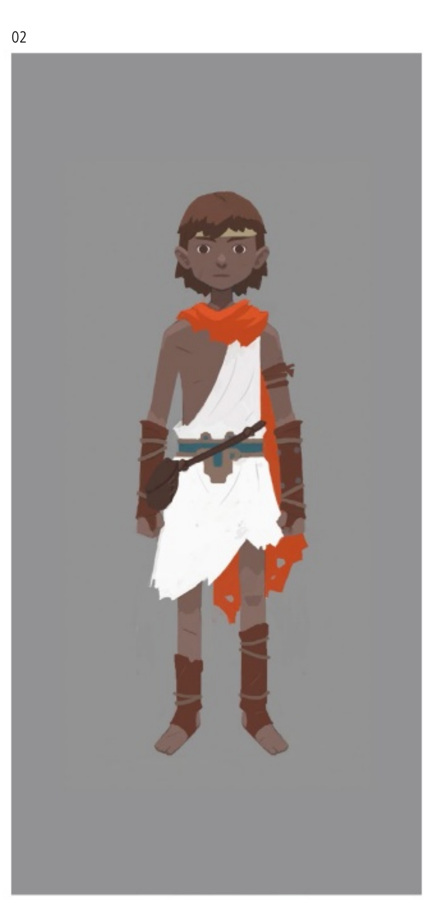
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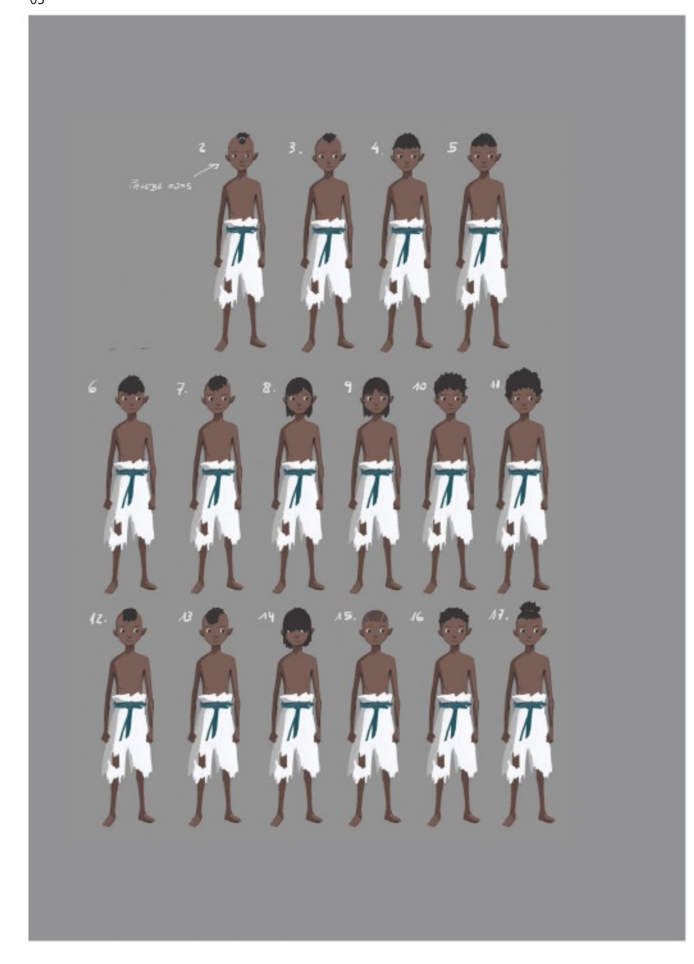


*Rime*'s protagonist has changed greatly since Tequila Works first came up with the game's concept. A painting on a studio wall shows a now-familiar island scene with one major difference: where we expect a child to be stands a burly, bearded, stony-faced warrior with a sword and shield. Once the game's themes had been settled on, the gung-ho look had to go. "It made no sense to have a super-muscular bald marine as a main character," Rubio says. "He's just a humble kid – he's not some kind of warrior."

Another design was scrapped after the release of the film version of The Life Of Pi, because the look of the hero the studio was shaping bore an uncanny resemblance to Ang Lee's rendition of Piscine Patel. And while the team refers to the young wanderer it has currently as a boy, it has tried to design him in such a way as to leave gender open to interpretation, hoping to make him or her as relatable as possible – something that is much easier to do when the character is only eight.

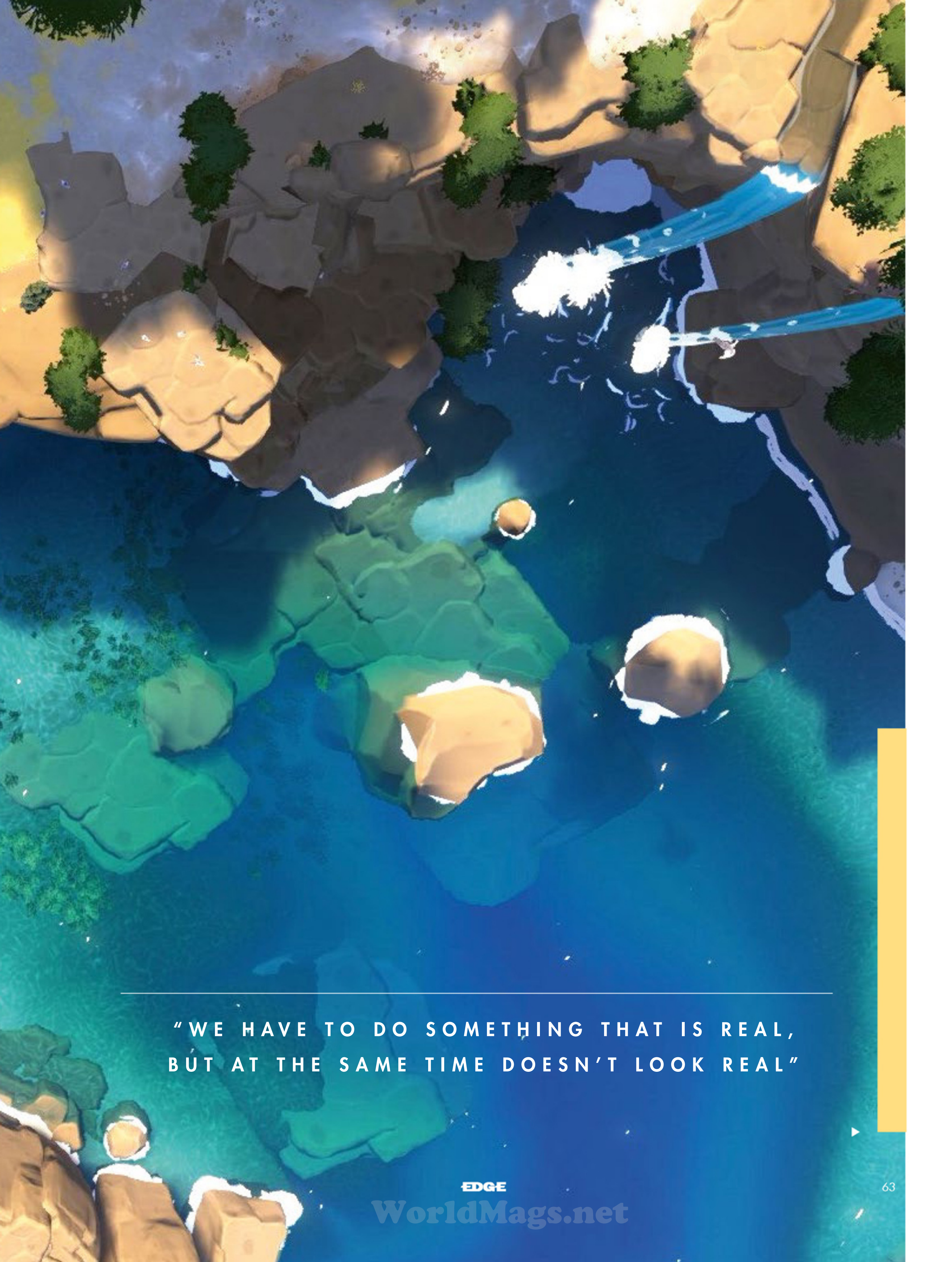
Yet youth can be a headache in its own way. The animators' hard drives are filled with grainy videos showing children using gymnastic equipment to capture their mannerisms; a kid might be able to somersault off a vaulting horse, but the landing won't be perfect, and it's those little graceless details that help set *Rime*'s star apart from his adult peers. Then there are the more playful touches – the lazy dangling of legs over the water's edge, the cannonball into the sea – designed to send you back to your childhood. "It's not *Assassin's Creed*," Rubio says. "We're pushing really hard to ensure you can relate to the boy in the way that he moves."

03



01 **There's none of this full-pelt running in the parts of the game we've seen, but new animation cycles will be introduced as you progress.**
02 **The team has aimed for a gender-neutral design, but refers to the protagonist as 'the boy' internally. The childish shout sounds male, too.**
03 **The character has been through countless iterations. You can blame Ang Lee and Fox Pictures for these versions of the boy being scrapped**





"WE HAVE TO DO SOMETHING THAT IS REAL, BUT AT THE SAME TIME DOESN'T LOOK REAL"

“REMEMBER, YOU ARE SEEING THIS WORLD AS A CHILD, AND CHILDREN HAVE NO LOGIC”

analogue stick, it’s time to pay attention whenever the game briefly takes over your view. The camera isn’t just one of Tequila Works’ most important tools for revealing the path ahead, however, but also yours. For instance, a fox leads us through a thicket of trees and we notice carvings on their trunks. By tweaking the camera, they combine to form an outline of a fox, which also happens to place the view at the perfect angle to locate the next puzzle.

So far, we’ve discovered two of this island’s rules: the importance it places on sound, and on perspective. What comes next combines the two, though with a mind-bending twist on the latter. We find a camera angle to line up the pieces of a small gold sphere that, when completed, generates a much bigger one farther away in the middle of another ring of simian statues. One shout later and we’re climbing up towards a bridge leading to a truly colossal tower, but there’s no way of getting inside. “Remember, you are seeing this world as a child, and children have no logic,” Rubio says. “They believe they can move the sun, right?”

So it proves, with further otherworldly subversion of real-world logic. We spy a long circular track on the ground. As we run around its circumference, the midday sun begins to set, then disappears entirely, the boy soon jogging beneath a canopy of stars. Turn and run the other way and the sun rises again. It’s been daylight since we got here, so the solution surely lies in the darkness. The moon illuminates the tower at the end of the bridge, and a doorway appears from nowhere. Inside, the boy finds a strange object, deep blue and sparkling, and reaches out to touch it. The camera pulls away, the game’s logo appears in the sky, and it is at this point that Rubio clams up.



**You can understand** Tequila Works being somewhat reticent to give too much of *Rime* away. This kind of game does not lend itself well to the traditional marketing blitz: there can be no blog post about the combat, no trailer reveal of the questing system, no supercut of the expensive CGI dialogue sequences, and no screenshot dump detailing the island’s secrets. It is a game to be unpicked and explored, not explained, and that applies to its marketing as well. It is telling, for instance, that its Gamescom trailer was not introduced or discussed, just shown. It was a very *Rime* way of showing *Rime*.

Rubio says the team was blown away by the reaction to the Gamescom 2013 unveiling, but has since found that its lack of suitability for the PR circuit prompts awkward questions. “This year, people were like, ‘Hey, it wasn’t at E3. Is it delayed? Did you cancel it? What’s the release date?’ Things like that. ‘OK, what’s the game?’ People want more.”



**While Tequila Works’ first game, *Deadlight*, had multiple endings, *Rime* has just one. Rubio says its meaning will vary depending on how many of the island’s secrets you’ve seen**

Rubio and company can be as guarded as they like, but they’ve chosen not to take down the printouts on a studio wall that together form a storyboard for the entire game. The island we’ve seen is just the first of five levels – one, Rubio says, for each of the five stages of grief. These will be linked by ‘dreams’ to put events into context. There are multiple islands, some with many areas, the colour palette and set dressing changing while remaining true to the team’s influences – Joaquín Sorolla’s use of light, Dali’s negative space, Giorgio De Chirico’s surrealism, and Studio Ghibli’s believable otherness – all shaped around Vaello’s desire for a consistent visual language. “It all has to be perceived as a whole,” he says. “You have to achieve some kind of balance, because of course it’s a fantasy game, but you can’t have, like, some old ruins looking extraterrestrial. They have to be fantastically themed, but not so out of this world that it would be something out of place. It has to feel close, to be something you can relate to, to be believable as something that could have existed previously.”

The project is driven by art, but requires that all disciplines work closely together in a way that simply ▶

**A selection of works by the artists who have inspired the game’s visual style:** 01 **Seaside Stroll by Joaquín Sorolla;** 02 **Premonition Of Civil War: Soft Construction With Boiled Beans by Salvador Dali;** 03 **The Anguish Of Departure by Giorgio De Chirico. Studio Ghibli is another major influence on the team**

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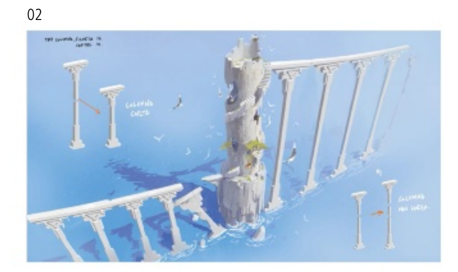


## TEAM BUILDING EXERCISE

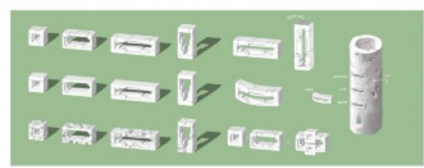
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01 **The environment must tell its own story.** 02 **Crumbling structures hint at a long-gone civilisation.** 03 **Sketches of increasingly weathered architecture.** 04 **Even trees in *Rime* take hours to perfect. Rubio says: "It's OK. Artists love trees"**

Small teams can do things of staggering scale with procedural generation, but in handcrafting its world, Tequila has no such luxury. "Everything is beautiful, but more importantly everything has to make sense," Rubio says. "We don't want to create something that is pretty but noisy and makes people get lost. We need to be very clear, to tell the player with the environment what they can or can't do. At the same time, it needs to feel really organic."

As such, architecture is modelled, but scenery is made of modules that are arranged in different orders. "We start with pretty ugly boxes everywhere, then the artists come in and dress them up. It requires a lot of imagination."

Aside from Studio Ghibli, *Rime*'s visual inspirations all hail from countries with Mediterranean coastlines, though Rubio doesn't think of the game as culturally Spanish, pointing out that there are 11 nationalities represented in his 20-person team. "This is a global industry, and we are trying to reach all the world. It's not about the differences, but about what we share. Ghibli's the perfect example: Miyazaki didn't create movies thinking about how people in Minnesota would feel. He expresses emotions that are universal. We are all human, and we were all children. It's one of the few things we can all agree on: 'Hey, I was eight years old once.' 'Really? Me too!'"

04



## NOTES FROM A SMALL ISLAND



Audio is every bit as important in guiding the player as visual design – in fact, Rubio thinks it might even be more important. Jog along the beach and the soundtrack builds to show you're nearing something important, while the crescendo of strings that greets one completed puzzle feels like this game's equivalent of a level-up jingle. Yet *Rime*'s soundscape is about much more than music. Sound designer **David Garcia** (left) has taken countless hours of nature recordings and is working to ensure that even the tiniest actions have sonic consequence. "There are subtle changes," he says. "You go five metres to the left and something shifts. We want to use sound not just as a response from a physical object in the game, but as part of the gameplay – to create a language with sound in the island."

Garcia says Studio Ghibli composer Joe Hisaishi, "a master of portraying a landscape through the eyes of a child", has been a huge inspiration, but the game's Japanese influence doesn't end there. Renowned *Silent Hill* composer Akira Yamaoka was a fan of Tequila Works' previous game, XBLA zombie platformer *Deadlight*, and is lending a hand. He was the first person outside of the studio to see the game running. "He's really close to the project, passionately involved and really professional," Garcia says. "He wants to know a lot about what we're doing, and not just with the music, but all parts of the game."



“IT’S A VERY HIGH-LEVEL GOAL THAT THE CHARACTER’S EMOTIONS ARE READABLE WHEN YOU PLAY”

wouldn’t be possible in a colossal studio on a big-budget production. Tequila Works’ 20 staff work in close quarters on a single floor of a converted town house in central Madrid. Rubio calls it a “tango a tres”, a three-way tango. Artists, designers and coders are all within shouting distance and must work together to solve the game’s uncommon problems: how to teach without text, to guide without signage, to narrate without speech. Then Rubio comes in with one of his sleep-deprived fever dreams and complicates things still further.

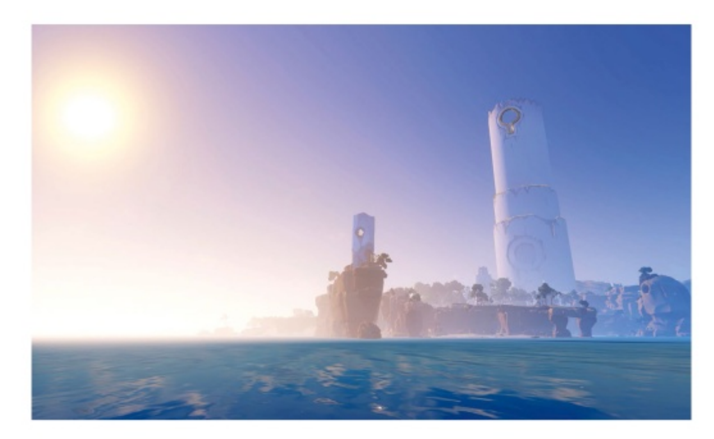
Indeed, one of his more recent ideas encapsulates the extent to which *Rime* deviates from the norm. It’s a scene shown in this year’s Gamescom trailer, in which the boy runs through an area at night with rain tipping down. His surroundings are invisible, the world given form only by the falling rain; this, it turns out, is something of a problem when you’re working with Unreal Engine 4.

“The engine is basically deferred, so everything has to be physically correct,” Rubio explains. “We are trying to create something that’s very Ghibli. We have to do something that is real, but at the same time doesn’t look real. It’s a problem.” Everything in the scene is faked somehow, reflections of something the engine doesn’t believe exists, the scenery drawn with shaders instead of textures. That has its benefits: once the artists had scratched their heads enough to reach a solution, it became one of the easiest scenes to produce in the entire game. The footage shown in the trailer took just an hour to set up – just as well, given that the team had to put its showreel together in just three weeks.



**It’s just as** well, too, that Rubio’s is not the only voice that matters. “Most of our ideas change and mutate all the time,” he tells us. “They are everyone’s ideas to manipulate. We’re like a football team. You don’t need to tell people exactly what to do. You know how the others play, what their strengths are. I totally trust the team, and I feel they can trust me, even though I’m super crazy.”

For **Sandra Christensen**, this rather unusual way of working is something of a revelation. *Rime*’s lead animator is the closest thing Tequila Works has to a superstar, her career taking her to the likes of LucasArts, EA and Double Fine before she joined the Madrid studio a year ago. “It’s one of the most fulfilling projects I’ve worked on,” she says. “The smallest company I was at before had ten animators, which is great for reaching a specific goal, with everybody specialising in one thing, but the great thing about this is that we’re all collaborating so closely. Everybody listens.”



While happy to discuss *Rime*’s visual inspirations, Rubio would rather not talk about other games. There are obvious comparisons to be made – most commonly to *Journey* and *Ico* – but Rubio likens it to trying to play a boardgame that doesn’t have an instruction manual

Christensen’s job is vital, too, because it is up to her to ensure the player develops a relationship with a protagonist who cannot speak. “We have to capture not only childlike [movement], which is really difficult to do, but also how he evolves and changes. It’s a very high-level goal that his emotions are readable when you play.” At the outset, the boy moves like an excited child, scampering up pathways, eager to see what lies around the next corner. Later, as the tone shifts, as he unravels more of the curious tale behind this puzzling land, that will need to change. “We have four or five different variations of up- and downhill animation, and climbing, and cliffs… It’s actually quite a bit for something small. It’s great that we can focus on the main character, and not get bogged down by a lot of NPCs or combat. We’re trying to do a lot for a ‘small’ project, and I say that in quotes – it’s really blossomed into something quite sophisticated.”

For all that *Rime*’s look catches the eye – that, after all, is what has made it one of PS4’s most intriguing prospects – it is the work that goes into making something so apparently simple that really sticks with us. What seems like a story of a boy on an island is about so much more than that, and there’s a tremendous amount of craft involved in making something that many have assumed, from the little Tequila Works has shown, is going to be small. “We were discussing yesterday how we thought the first island was the biggest,” Rubio says, “but the second is double the size, the third is double that again, and I can’t say any more without spoiling the game. We have two rules here. One, we make unique universes. Two, we make simple games.” The studio has certainly nailed the first, but the second? As Rubio admits, “It never happens.” ■

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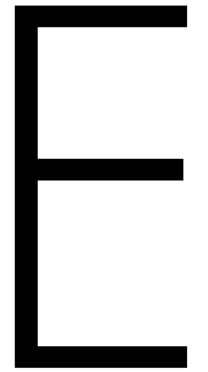
AN AUDIENCE WITH…

# RICHARD LEMARCHAND

The Uncharted designer on art games, education, and being an old-school cyberpunk

By Ben Maxwell





Enthusiastic but contemplative, **Richard Lemarchand** is best known for his lead game design roles on the *Uncharted* series, serving alongside the likes of Neil Druckmann and Jacob Minkoff. But in 2012, after eight years with his celebrated creative team, he left Naughty Dog in order to take up a full-time associate professor role at the University Of Southern California. Despite his new focus, Lemarchand hasn't left making games behind, and is currently working on a series of experimental prototypes while simultaneously attempting to relearn, and perhaps even reinvent, his craft. We meet with him in a quiet café a short distance away from this year's bustling Dare Protoplay show, for which he delivered the keynote, to discuss what inspired his change in direction, designing ambiguity into games, and why virtual reality will challenge more than just your visual perspective.



# CV

Richard Lemarchand began his videogame design career at Microprose in 1991 after responding to a job advert in a local newspaper. His earliest projects were actioner *Tinhead* and flight sim *F-15 Strike Eagle II*, both for Sega's Mega Drive. Four years later, he moved to Crystal Dynamics as a lead game designer on several games, including the 3DO version of *Gex*, and then *Pandemonium* and the *Legacy Of Kain* series on PlayStation. After nearly a decade with the studio, he moved to Naughty Dog, first working on *Jak 3* and *Jak X: Combat Racing* before beginning the *Uncharted* series. He now lectures at the University Of Southern California.



**What were the reasons behind your switch in career?**

The way that I've been explaining it to myself is that I have always been interested in both technology and the arts. I was one of those kids who loved science and maths, but was always on a stage somewhere doing something. I liked to draw and make things out of cardboard when I was a kid, and I did quite a lot on home computers, too. And I grew up in the '80s, a time when the promise of virtual reality was clearly on the rise and digital technology was revolutionising the world and the arts. So I wanted to do something with my life that would allow me to make things, to create and to use all of these exciting new tools that were appearing in the world.

By the time I left college, I was convinced that to be a game developer would be a wonderful thing to do with my life. I was very lucky that Microprose, who had an office in the south west of England at the time, was advertising for game designers in our local paper – my mum spotted the job advert and convinced me to send in my CV and a covering letter! They gave me a chance. I was unproven as a game designer; I had some hobbyist game-making experience, but no professional experience. I was a very poor BASIC programmer, but I loved to draw, [so] I took along some designs that I'd done and they gave me a six-month trial. I didn't look back. But at the same time, my other overriding passions were the novel, cinema and pop music, and I entered the world of videogame development feeling like all of these other interests were imminently going to come to bear on videogames as a form. When Psygnosis hybridised the world of electronic dance music with gameplay and very stylish visuals from The Designers Republic, who'd I'd loved from the magazines they were designing at the time, I was like, 'Right, yes, this is happening.' I'd always had this fire in my belly for videogames in the context of contemporary art and culture, and that's really what led me to work on the kinds of projects that I worked on: the idea that games could reach towards something artistic. It's what led me to Naughty Dog, of course – that's a no-brainer, because their work is transcendent. And then it was what led me to volunteering at University Of Southern California, where I now work, and to start volunteering for IndieCade, the international festival of independent games.

**So what made you act on exploring those interests?**

I remember where I was when I made the decision: I was ironing a shirt in a hotel room at IndieCade in the fall of 2010, and we'd just had an amazing weekend of art and indie games and great talks from so many wonderful progressive designers and thinkers. And I kind of saw this fork in the road ahead of me very clearly. It was very difficult for me to leave Naughty Dog; it's an amazingly talented game studio filled with phenomenal people that I've learned so much from. And I could have stayed there indefinitely. But at the same time, like many people, I thrive on change and challenge, so after *Uncharted 3*, it just felt like a good point to make a change of direction. I thought, 'Perhaps I have an opportunity to move my work a little closer to the world of art games.'

**How did your USC appointment come about?**

I started talking quietly to friends about what kind of opportunities there might be out there, and one of those friends was Tracy Fullerton, who's the director of the USC game programme and now my boss at USC Games. She said that there might be an opportunity at the School Of Cinematic Arts, in which the Interactive Media & Games Division that we work in is situated, to make a transformational hire – when they take someone from industry, typically a cinematographer or a great writer, and bring them on at the teaching faculty in the School Of Cinematic Arts. And that's what happened. And now this new role has fulfilled my goal beautifully, because I get to bring my experience and everything that I learned from all my amazing colleagues down the years and relate it to my students. I get to do a lot of talking about games and play as art and culture, so it's worked out really well for me. I'm really happy.

**Do you find teaching as satisfying as making games?**

It is very satisfying, but in a different way. I have to be completely honest that, yeah, now that I'm three years away from shipping my last big triple-A game, I do miss it. There's something incredibly satisfying about working in a big team like that, doing this incredibly difficult work that requires a good ear for nuance, a good sense of how

# "I'D ALWAYS HAD THIS FIRE IN MY BELLY FOR VIDEOGAMES IN THE CONTEXT OF CONTEMPORARY ART AND CULTURE"










The *Uncharted* series debuted in 2007 with *Drake's Fortune*, borrowing elements from *Tomb Raider* and *Gears Of War* but reshaping them into something that has character of its own

things are working both rationally and emotionally for an audience that is kind of removed from you. Even though we did a lot of playtesting at Naughty Dog, it's still a kind of indirect art; you're devising rules and tweaking numbers in order to create a system from which dynamics will emerge when another human being plays with it. And that's a little different from writing a story or editing a film. You're creating this space of possibility for someone else to explore and make discoveries in. Shipping a big game, one that works out well especially, is really satisfying and I do miss it a bit, yeah. Although hopefully I'll get some of that feeling back when I start to playtest and release the experimental games that I've been working on.

**Has the opinion you held of videogame education as a creator changed in any way since you moved into teaching yourself?**
I've been following videogame education very closely as it has developed over the past decade or so, and I'm the kind of person who reflexively buys every book on game design that comes out. So I feel like I've pretty well kept on top of the way that game design, development and production education has developed. I know that, as with anything new that's highly complex, it's been a struggle for everyone – on the side of the academy and on the side of industry, and maybe for the students as well – to work out exactly what it is we all want from game education. But I think that we're in a really good place right now, because, of course, the answer to that question is never going to be unitary. There are so many different kinds of interests that it's possible to have in videogames, [spanning] from the point of wanting to learn concrete skills that you can apply in the creation of a game to maybe more abstract skills related to design or production. You might have an interest in games which is cultural, sociological, psychological or critical, and I'm very excited about the emerging field of game studies, which is gathering a great head of steam. And I think that game schools are now carving out identities for themselves to describe well to potential students and potential faculty staff exactly what it is that they do. That has obviated many of the tensions that may have been around, certainly in the more distant past.

**How much time do you get to be a game designer nowadays, alongside your teaching duties?**
I'm carving out as much time as I possibly can to continue to be a game designer, but it has been a challenge. And as a new teacher, I have had a lot to learn. So certainly for my first year at USC, my teaching took up a lot of my time. Although I think once a game designer, always a game designer – they can never really take your stripes away from you! I've been interested in design with a capital D since before I joined the game industry, and I aspire to always be designing, all day, every day. I've always been very interested in the relationship between design and art. At a young age, I was introduced to the work of William Morris, and to his adage, "Have nothing in your house that you do not know to be useful, or believe to be beautiful." I'm very interested in that idea, and it has always seemed very relevant to me as a game designer, or for any kind of interaction design, when you want to make something that is useful, tractable, *interactive* that we can understand how to use – or at least if we can't understand how to use it, then part of the designer's intent was to obfuscate or confuse. And at the same time, we want to create some kind of emotion or a sense of beauty, or to impart a message. So to align these aspects seems like a very interesting problem or challenge. And I guess that I try to bring that design lens to everything that I do.

**So can you tell us what you've been working on?**
In that first year [at USC], I began working on an experimental game design research project with Julian Kantor, a very talented Interactive Media & Games MFA student. Julian listened to the ideas that I'd been formulating over the course of the time leading up to my joining USC and immediately added a load more amazing ideas to do with procedurally generated environments. Over the past two years, he's built out this amazing ▶

Lemarchand's first notable lead design role was on Crystal Dynamics' 3DO title *Gex*. The titular gecko became the studio's mascot for a time




NO.
12
UNION OF DESIGN & PLAY

engine in Unity that allows me to do all kinds of cool stuff with explorable 3D spaces that are generative and never the same any two times that you pass through them. So this summer, and last semester in the spring, I've been finding as much time as I possibly can to really hone my own skills, and to try to reinvent to some degree the way that I make games. I saw this as an opportunity to try to springboard off what I already knew, but to also go back to square one in some ways. I've been learning lots more about Unity and C#, because I've always been the kind of game designer who believes in being hands-on. I really like to have used every tool once, mainly so that when I have to talk to people who are very skilled at using a tool, I can talk some kind of sense! But also I love to make things, so this summer I've been creating a whole bunch of prototypes, and finally something is starting to emerge.

**Where do you see your research taking you? Is it purely academic, or can you envisage a future in which you've founded a new studio?**
Right now, I have a kind of luxury that I've never had before: I have time. I do want to put something out there in an appropriately near-future timescale – I'm a big believer that you have to make work and just put it out into the world in order to make progress in your own design practice. But at the same time, never before in my life have I had the luxury to say, 'I'll release it when it's ready.' And I think I'm going to, in the great tradition of brilliant game designers such as Tracy Fullerton and Jonathan Blow, see where the game leads me, and whatever's appropriate for it is the form I hope it will take. I'd definitely be excited about the idea of forming a studio in the future, if that was something that could fit in well with my work at USC. But I would also be equally happy if it was a game made by a couple of people, because I believe that games made by small numbers of people can be every bit as powerfully expressive as games made by 300 people.

**Are there any areas of game research that particularly interest you at the moment?**
Design research is a broad term that's still being fought over, but it's the sense that you can make discoveries that are maybe not quantitative discoveries, but are more qualitative discoveries by making works of art and entertainment, albeit interactive or playful, that help you to develop your own practice and your own voice. I think that's where my work is going to land. Although I do have a lot of very specific interests, things that games haven't traditionally discussed. I'm interested in interpersonal dynamics, especially ones that are difficult or troubled in some way. For example, I'm interested in emotional abuse, since it seems like a very complex subject that's hard to have a conversation about. I'm also interested in human sexuality.

"I'M INTERESTED IN INTERPERSONAL DYNAMICS, ESPECIALLY ONES THAT ARE DIFFICULT OR TROUBLED IN SOME WAY"

***Uncharted* is renowned for the interplay of its characters, but did you feel indie development better suited your desire to explore these kinds of issues?**
I guess what I'm most interested in is the connections that I see between games and other cultural forms like the novel, or pop music, where we don't so much have a particular message that we want to get across, but we do have something that we want to say. And maybe we want to say something at multiple levels at once; maybe we want to say something that is hard to say directly, perhaps something about the culture that we find ourselves in, something that's good and bad at the same time. Maybe it's something about our interpersonal relationships that has the same character. I am grateful to you, and thank you for the compliment that you paid the *Uncharted* games, and I think that, because of the skill of the team, we did do some of that. We certainly tried to put a lot of complex stuff into that game that couldn't easily be interpreted in a sort of singular way.

**It's certainly true that players feel deeply connected to, and protective of, the central cast of those games.**
That's part of Amy Hennig's brilliance. She once articulated it to me very clearly, the way that she felt that if the character ever said something that an audience could understand unambiguously, then that dialogue would not be as powerful as dialogue that was overtly clear but in the gaps around what [the characters] were saying there was some ambiguity or uncertainty about exactly what they meant. Because that's how we relate to each other, right? I can pay you a compliment, but you might not be sure if it's loaded with some resentment. That is the stuff of the complexity of our interpersonal relationships. And when we create that way, our audience reacts to what we're overtly putting into it and are brought along for the ride by their understanding of someone being in love with someone else, but they bring their own depth of understanding and emotion to all of ▶

In the late '90s, Lemarchand worked on ***The Legacy Of Kain: Soul Reaver***, which cast you as Raziel, a former vampire who can switch between the material and spectral realms





While *Uncharted 3* may be inferior to the standout second game, it certainly has its moments, not least when you find yourself stranded in a sparkling, spectacular desert

## NAUGHTY STEP OUT

"Because of the intensity of my past two years at USC games, I sadly haven't visited Naughty Dog as much as I would have liked to since I left," Lemarchand tells us when we ask about the spate of high-profile departures from Naughty Dog. "I'm very excited for all of the games Naughty Dog have coming up in both the near and distant future. I thought *The Last Of Us* was terrific, and I'm very excited to see what the guys at the studio have done with *Uncharted 4*. And I'm also excited for Amy, who's in this amazing new role on the new Star Wars game. Of course, a situation like this is always complex, and if we wanted to look at it in a clear light, we'd probably have to fill several books' worth of history – history that's probably not yet ready to be told."

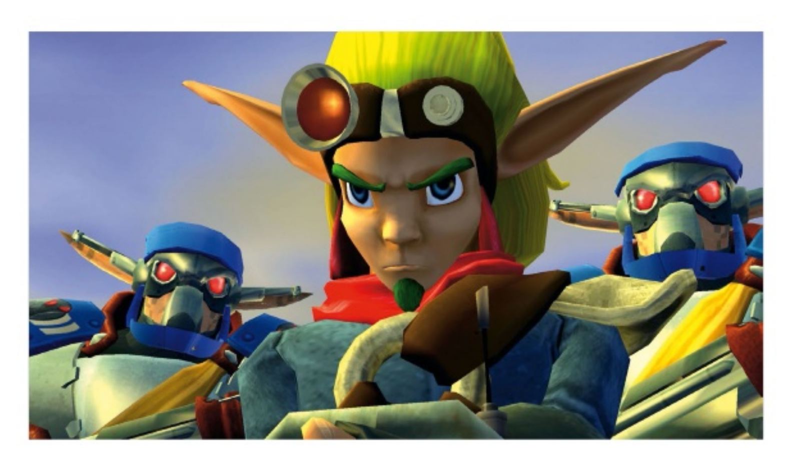
that other stuff in the spaces around the edges. They bring their whole history of personal experiences to it, and in doing so, that work [then] becomes their own.

**But do you think that kind of ambiguity can extend beyond dialogue and narrative into design?**
Yes, absolutely. In the case of *Braid* and games like that, it finds expression in play mechanics, I think. If you look at a seminal example, Rod Humble's *The Marriage*, where with some shapes and some mouse interaction he says something that's difficult to say about his experience of the dynamic tension of being in a committed, mutually nourishing relationship, and your relationship with the rest of the stimulating, replenishing world. And while I have been quite narratively focused in the work that I've done – and I am still a big believer in that – I'm also extremely excited about the possibilities of expression through game mechanics, maybe in a very abstract sense. I'm a big fan of the work of Steph Thirion, who made *Eliss* and *Eliss Infinity*, which, on the face of things, are these quite abstract puzzle games, but which I think are artworks that tell us something about our perceptions and our ability to act through our fingers.

**When do you think that kind of depth of thought will proliferate throughout the industry and beyond being predominantly the preserve of smaller developers?**
Well, I'm a big believer in the expressive power of interactions that aren't necessarily strongly ludic. We see it in the work of people like Tale Of Tales through games like *The Graveyard*, which I have often spoken about as being very influential on the opportunities I saw when I worked on the peaceful village sequence in *Uncharted 2*. We see it everywhere in game design now, from this emerging genre of experiential games – which includes *Dear Esther*, *Proteus* and *The Night Journey* – and a whole load of other awesome stuff that's coming along. And also in moments of gameplay, like the way that Telltale Games have very skilfully asked you to choose between two different paths in a dialogue tree, both of which lead to the same resulting node. Some people might say that's meaningless; I disagree, because you've made a *choice*. It's almost as if you've said something, and in saying it, you became more of a particular way of being. You expressed yourself. And that's part of the interaction and meaning of the game. So I think there's a lot of interesting stuff related to what you're describing to do with various different kinds of expressive gameplay. It's a huge field and I think we'll see a lot more of it in virtual reality.

**Are you following developments in VR very closely?**
I'm an old-school cyberpunk. I didn't read Neuromancer in 1984 – I think I read it two or three years later – but ever since then I've been eagerly gobbling up every bit of thinking and fiction that I can related to the idea of simulated worlds. So I've always been intrigued by the idea of a kind of theatre of the mind, the theatre of inner space, where all of our senses can be spoofed. Virtual reality always seemed to me like spoofing the sensorium – the sensorium in the Bishop Berkeley sense of the entirety of our perceptions, of our phenomenological set and our sense of proprioception. And I've always been interested in the strange, the outer edges of human experience in dreams and hallucinations. Partly because, as Oliver Sacks so eloquently points out in The Man Who Mistook His Wife For A Hat, it's really by looking at when things go strange or wrong in the human mind that we learn most about the functioning of all of our

# "I'VE ALWAYS BEEN INTERESTED IN THE STRANGE, THE OUTER EDGES OF HUMAN EXPERIENCE IN DREAMS AND HALLUCINATIONS"



*Jak 3* continued the darker tone of its predecessor, seeing its star banished to the Wasteland, a huge desert that borders an ocean and contains a shanty town at its centre, for crimes he didn't commit

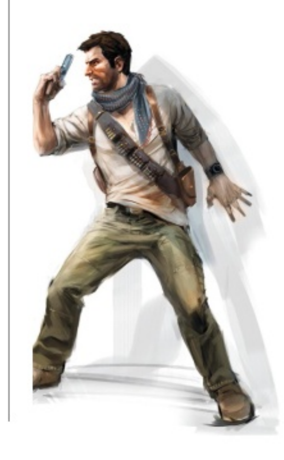
minds. And, of course, I've always been very excited about VR as an artform and the kinds of things that we could do. And USC has a connection to Oculus Rift – my colleague, professor Mark Bolas, worked for decades on a set of virtual reality technologies, some of which provided the basis for Palmer Luckey's work in VR. And Laird Malamed, another colleague who teaches in the USC game programme, is now the COO of Oculus VR. So that means that there are a lot of Oculus headsets around at USC, which students and faculty staff have all been keenly experimenting with.

**Going back to your comment on perceived choice in *The Walking Dead*, many games that attempt to blend nonlinear and linear design highlight a tension between the two. Do you think they can coexist?**
I don't see why not. For example, I really liked what Naughty Dog did in *The Last Of Us* with the crafting system. The way that the story unfolds is structurally quite similar to the way that the *Uncharted* games unfold, and yet it sits happily in harmony with this tremendously nonlinear complex system that has lots of emergent properties, which impact the parts of the narrative that are to do with you the player and your actions in the game. Although, of course, in design everything is important, the gestalt of the system is important. If something is bolted on that doesn't sit well with the rest of the parts, then I can imagine situations in which they would be mutually antagonistic. There's a novel called Hopscotch by Julio Cortázar that's designed to be read in unusual orders, and I think that kind of stuff is going to be a big part of the future, certainly of art games and maybe increasingly entertainment games, too. In the '30s it would have been hard to envisage a movie like Memento. And yet by 2000, cinema audiences had been jumping around in time enough to be entirely ready for a piece of storytelling as complex as that.

***The Last Of Us* was updated recently – would you like to see *Uncharted* receive that HD treatment too?**
I'm very excited about HD remakes of older games. Mainly because they're often really great, but also because videogames face a particular kind of archival problem. Very often the assets that go into making a game don't get archived properly at the end of a project, and sometimes games just become inaccessible after a certain amount of time. But there are also complex issues around revisionism; whenever you remake something, I'd say it's impossible to not change it in some way, and I think there could be interesting cultural questions around what those changes might mean... But overall I think it's a great trend and I hope we see a lot more of it. I was very happy to see Abe back in action!

**How do you feel about the way that the industry has changed since you became an educator?**
It's very interesting. I think, though, that there isn't really just one game industry; there are a huge number of interconnected industries, some of which are more similar to each other than others. And I remain keenly interested in the fortunes of the industries because of my friends that work in various parts of them, and for my students. I'm always disappointed to see studios close or have their funding withdrawn. But at the same time, maybe it's a case of the more things change, the more things stay the same, because the kinds of difficult things that we've seen happen recently are the same kinds of things that I've seen all throughout the duration of my 20 years in the game industry. But I feel confident that the future is bright for the entirety of games because of the way that we're always being either invited or required to learn new skills and to think creatively in new ways. And that always creates business opportunities, right? It's really down to us to figure out how to connect to other human beings in a way where we can give them something that they're happy to give us some money in return for. That's a very long-standing problem in the history of the arts that reaches back probably 4,000 years! I remain really excited about the kinds of technologies that are coming along and the kinds of artforms that are emerging, and the energy and clarity that young people bring to this, and any, artform. ■

Nathan Drake doesn't need outrageous costumes or weaponry to stand out. It's how he relates to others that sticks in the mind





# UK GARAGE

From Revs to Forza Horizon, Britain has led the world in driving games for more than three decades. Where did this talent come from?

**By Simon Parkin**

The year is 1983. Developer **Geoff Crammond** lowers himself into the passenger seat of a growling BMW on the starting line of Thruxton racecourse. From the driver's seat, David Hunt – a professional Formula Three racing driver and the younger brother of 1976 Formula One world champion James Hunt – flashes him a smile. Crammond, who up until this day had no interest in motorsport, places the VHS camcorder he'd bought for £1,400 that week (most of the advance that he'd received to develop his forthcoming game) onto his lap and presses the record button. Hunt, meanwhile, presses his foot to the accelerator. Neither could possibly know how much the tape of their drive would change the face of British game development.

"It was an awe-inspiring experience," says Crammond, a publicity-shy programmer who has largely retreated from the game industry in the three decades since. "It was invaluable in giving me a sense of what it's like to be in a racing car at high speeds on a circuit. I came away with a good feel for what I needed in my game."

In short, *Revs* was hugely influential for a generation of British youngsters who would grow up to become developers. "It was my first experience with a British-made racing game," says **Martin Edmondson**, founder of Reflections Interactive (later Ubisoft Reflections), the studio behind *Driver*. "Even now, and speaking as an ex-BBC Micro developer, it's hard to fathom how Crammond managed to get the Micro to do everything [he did]. I probably put more hours into that game than any single other videogame to this day. It amounted to man-months of trying to shave fractions of a second off my virtual Silverstone lap times."

Crammond's game is, however, just one of a suite of British-made racing titles that have been instrumental in defining the genre. *Destruction Derby*, *Burnout*, *TOCA Touring Car Championship*, *Need For Speed: Shift*, *Colin McRae Rally*, *Racedriver: Grid*, *Dirt*, *Project Gotham Racing* and *Wipeout*: a list of great racing games would be disproportionately British.

As such, UK developers can also lay claim to a long list of racing game firsts. Mike Richardson's *Turbo Esprit*, for instance, was one of the first games to feature pedestrians, traffic lights, indicator lights on cars and even a view of the car's interior





**Geoff Crammond (top), designer of the influential *Formula One Grand Prix*; and Martin Edmondson, founder of Reflections**

## RACING PEDIGREE

**Many of the key advances in racing game design have their origins in British-made games. Here, we look at some of the milestone UK releases that have shaped the genre, from the early work of Crammond to the systemic leaps forward of today.**



**1984: Revs (Geoff Crammond)**
**One of the earliest 3D racing sims – you can even drive the wrong way around the track – Crammond's Formula 3 recreation also allowed car customisation and featured opponents with rudimentary AI.**



**1990: Lotus Esprit Turbo Challenge (Magnetic Fields)**
**This racer offered a convincing sense of speed at the time and required you to manage fuel as you worked through its 32 stages (on Amiga). It even had a manual gear option.**



**1996: Formula One (Bizarre Creations)**
**The first in the *F1* series was not only an exceptional racer, but also built atmosphere with official Tag Heuer branding and, in the UK version, Murray Walker's commentary.**

That game was *Revs*, released in 1984 for Acorn's BBC Micro and later ported to C64. Published by Acornsoft, a sponsor of David Hunt, the game had little in common with the skittish arcade racers of the period. "I agreed to make the game not because of my interest in motorsport," Crammond says, "but because of my interest in physics. At that time, the major racing game was *Pole Position*. I wanted to develop something quite different. I wanted to build a simulator."

Crammond used his camcorder to film the exact layout of a clutch of famous British circuits, laying the groundwork for *Revs* to offer unparalleled realism. His game also provided an unusually realistic view of the action. Positioned close to the tarmac, and with only limited visibility, it was a challenge just to read the twists and turns of the slithering road ahead. *Revs* was a game of firsts: the tracks featured curbs, forcing care when cornering, and no title before had recreated the sense of speed and peril of professional motorsport with such accuracy. On the complicated family tree of racing games, *Revs* sits high in the canopy and its long branches lead down to the virtual racing behemoths of today – the likes of *Gran Turismo* and *Forza Motorsport*. Of course, it also fed into Crammond's own highly regarded *Grand Prix* series, which introduced 20-car races and Formula One-style data logging and graphs.

controls. Published by Durell Software – a small software company from Taunton in Somerset – in 1986, Richardson's game would go on to influence the creation of *Grand Theft Auto* with its early example of cities ripe for exploration.

**For Andrew Morris** – who in 1982 co-founded the company that would become Magnetic Fields, and helped create seminal racing games such as *Super Cars* and *Lotus Esprit Turbo Challenge* – all of this British success is born of a deep and enduring cultural love affair with cars. "Motoring and even racing are popular and important parts of British culture," he says. "Our heritage is rich and storied. That has to be at the core of why British games have such significant representation as a genre in computer games."

Morris grew up playing Crammond's games. He believes that *Revs*, and the games that followed its lead, laid down some of the defining traits of British-made racing games. "If you look back through the history of British games, you constantly find individuals who have understood how to marry great driving mechanics with novel experiences tied to cutting-edge technology. Crammond's *Formula One* [*Grand Prix*] series has such great soul; it was a mesmerising experience as well as creating a graphical revolution at the time. That's been ▶

reflected in many of the games that have followed, from *TOCA Touring Car Championship* to *Project Gotham Racing*, each of which has its own innovations and revolutionary ideas."

Some of that innovation can be seen in Edmondson's first foray into racing games, 1995's *Destruction Derby*. Alongside Psygnosis's *Wipeout*, also released that year, it helped to herald a new 3D dawn on Sony's PlayStation and Sega's Saturn. This pair of games kickstarted a period of unprecedented creativity in the racing genre across Britain. More generally, Edmondson argues that Britain's unique position within motorsport at large has also been instrumental in informing the kinds of games its developers have made. "The UK has long been a centre of excellence for technical skills in motor racing, with many F1 and rally teams based here," he says. "We have engineering firms like Prodrive or Ilmor supplying components and even entire engines to both F1 and US motorsport. When you grow up with all of that around you, as well as racing icons such as Nigel Mansell and Colin McRae, it rubs off. With so many of those automotive engineering companies based here, it's a big help with assistance and access for those making the games too."

hire most of the team from scratch. We worked in refurbished Portakabins, which were hot in the summer and freezing in winter. The electrics were temperamental, we had no phones, and there were swarms of flies from the stud farm next door that would bother us."

The industry, as Raeburn is quick to point out, has changed greatly in the subsequent years, and not just in terms of working conditions for its developers. "Racing game tastes and interests have evolved very quickly over the years, with doors closing and new opportunities appearing all the time," he says. "The smaller racing licences that were the mainstay of racing games in the late '90s would be just too niche to survive today. In that respect, I think British racing developers are a brave breed… they're not afraid to take risks or reinvent themselves. This approach has resulted in some casualties, but it has also produced some very long-running franchises."

Indeed, the late '90s marked a serious power shift. Up to this point, Japan may have ruled the arcades with *Virtua Racing*, *Sega Rally* and *OutRun*, but British racing games led the way in the field of simulation. Until, that is, the release of Sony's *Gran*



**1997: TOCA Touring Car Championship (Codemasters)**
**This game used CAD data to model its cars, a technique that is now industry standard. Additionally, *TOCA* pioneered the use of Ordnance Survey maps to create its tracks.**



**1998: Colin McRae Rally (Codemasters)**
**The first *Colin McRae* felt unlike anything else, delivering an addictive rally sim. Codemasters' technique is exposed during replays, where you can see the cars rotate about an axis.**



**2000: Metropolis Street Racer (Bizarre Creations)**
***MSR's* tracks wove through accurate models of London, Tokyo and San Francisco. A Kudos system rewarded stylish driving, and it was the first driving game to have radio stations.**



**2001: Burnout (Criterion Games)**
**This arcade-styled racer featured a groundbreaking damage model and rewarded you for dangerous manoeuvres such as near misses or contraflow driving – elements that are now commonplace in the genre.**

**Stephen Hood**, creative director of the *Formula One* series at Codemasters, agrees. "British studios *get* racing," he says. "Many of us are able to draw on experiences we had when growing up, [since] motor racing received incredible air and press time [in the UK]. That means we instinctively understand the passion behind motorsport, so we don't have to spend time figuring out what we want from that core. It means that we can look beyond the obvious and innovate in other areas in order to make games that are unique."

**Gavin Raeburn, founder** of *Forza: Horizon* developer Playground Games, had his first experience of a British-made racing game with 1985's *Scalextric* on C64. He recalls spending hours working with the track editor to painstakingly recreate famous circuits from all over the world. The hobby became a vocation in 1996 when Codemasters bought the *TOCA* and *Colin McRae* licences and Raeburn took the chance to start working on *TOCA Touring Car Championship*, one of the first 3D racing games to aim for deep realism and, in its chosen niche, the inimitable quality that Hood refers to.

"It took around a year to research, design and build the game, which was a real challenge at the time," Raeburn says. "We had no tech base or art pipelines in place, and we had to

*Turismo* in December 1997 – a long-running series that Raeburn had to contend with early in his career. This simulation racer, designed by professional driver Kazunori Yamauchi, was a masterpiece of design and engineering, and harboured an ambition to become an extensive catalogue of car manufacturing (the original release featured 140 different car models and 11 tracks) to boot. Seemingly overnight, *Gran Turismo* shifted the focus of racing game development away from the UK to Japan.

"*Gran Turismo* was a bit of a broadside to the industry," says Edmondson. "After all, it came from the guys that created *Motor Toon Grand Prix*. Who saw that one coming? Perhaps we were a little bit complacent, but suddenly we were being challenged at our own game in terms of technical excellence."

For Raeburn, the shift was also the result of Sony's involvement. "*Gran Turismo* was revolutionary for its time, both for its realism and huge roster of cars," he says. "With direct support from the platform holder, Sony, it was a game of huge scale, with a development [timeframe] and budget to match. With their smaller budgets, British developers could not compete directly with it. I remember thinking how fortunate it was that *TOCA Touring Championship* launched before *Gran Turismo*. Our small budget allowed us to build just eight cars, which shows the tremendous difference in scale." ▶









TOP The BBC Micro version of *Revs* featured just one track, Silverstone. ABOVE *Stunt Car Racer* presents undulating, rollercoaster-like circuits. RIGHT Geoff Crammond's *Formula One Grand Prix* offered unrivalled depth for its time, and still has an active community

"The major racing game was Pole Position. I wanted to develop something quite different. I wanted to build a simulator"





ABOVE *Destruction Derby* features an arena mode, letting you test the limits of its cars' damage models. LEFT Released prior to Polyphony's *Gran Turismo*, *TOCA Touring Car Championship* set a new high-water mark for driving games






TOP *Driver: San Francisco* allows players to 'shift', or teleport, between cars. ABOVE Codemasters' *Race Driver: Grid* rebooted the ageing *TOCA* series. RIGHT *Project Gotham Racing* rewards stylish driving with Kudos points




# "Any publisher looking to develop a high-quality racing game will most likely have a British developer at the top of their list"




LEFT *Burnout Paradise* replaced the series' winding, linear roadways with a huge online open world. Today, creator Criterion is broadening its outlook beyond pure driving games – its next game will feature various modes of transport, including wingsuits

"I think the Japanese studios started looking further ahead at that time," says Codemasters' Hood. "They had access to great technologies, had incredible parent company support, and this was at a time when certain individuals got the break they needed to deliver on their dreams. Certainly in the case of Yamauchi and the *Gran Turismo* series, he was given the time to develop the technology to realise his dream. I think the British industry was in full swing and delivering sequels during this period. Invariably, you struggle to make as big a leap in a vastly shorter development window."

The shift in the industry's focus from the UK to Japan and the US heavily impacted British racing game developers, and investment trickled away. Perhaps most infamously, Disney bought the Brighton-based Climax Racing in 2006, renamed it Black Rock Studios, and then closed the developer in 2011 after the critically acclaimed *Split Second* and *Pure* failed to translate their scores into sales. **Gareth Wilson** was one casualty of this recession period. Having helped design games such as *Project Gotham Racing 3*, *PGR4* and *Blur*, he was made redundant when Bizarre Creations also folded in 2011. But for Wilson, who is now design director at Sumo Digital, the closures weren't all bad, because they created new opportunities.

"Redundancies resulted in talent getting together, starting new companies and picking up work on racing projects by drawing on the team's experience in the genre," he says. "Sumo Digital is a perfect example. It was originally formed from the closure of Infogrames Sheffield. Sumo's first titles were racing games, and today they're still a big aspect of what we do. We have huge amount of racing experience here from pretty much every racing studio in the UK."

Raeburn agrees that the collapse of old studios had an upside. "In recent years, we've seen our racing talent consolidate," he says. "The unfortunate closure of some well-respected British racing developers has resulted in the strengthening of our remaining racing studios, who have absorbed many of the affected staff. More than ever before, any publisher looking to develop a high-quality racing game today will most likely have a British developer at the top of their list."

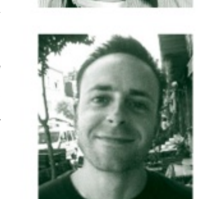
In the years following *Gran Turismo*'s release, the dreams and aspirations of its developer Polyphony Digital have been catered to by Sony; sequels have, in most cases, only arrived when they are ready. These delays have, some argue, allowed British racing studios to regain lost ground, but they could not have capitalised on them with a talent for invention. *Grid*, *Dirt*, *Forza Horizon*, *Burnout* and the British-made entries to the *Need For Speed* series are all considered major achievements in the genre, many establishing new ideas that studios outside of the UK have subsequently adopted.

**Raeburn is one** of the figureheads of the revival. In 2009, Turn 10 Studios, which develops the *Forza Motorsport* series for parent company Microsoft, approached Playground Games with the offer to create an open-world racing game using the *Forza* name. During the process, Turn 10 mentioned that it wanted to give the game, which would become *Forza Horizon*, specifically to a British developer.

"I think the attraction was our heritage," Raeburn says. "We have seen a huge amount of creative innovation come from our country, and not just in terms of design that, like *Grid*'s rewind feature, have now become industry standard. *Wipeout* was revolutionary for its time, fusing bleeding-edge graphic design, music and gameplay into an intensely trippy and flowing experience that helped define PlayStation as a cool console to own. *Project Gotham Racing* brought us the 'Kudos' system, which made races about more about racing with style than merely winning."

Raeburn believes that these sorts of innovations are the product of a decidedly British approach to design. "Take *Driver: San Francisco*, for example," he says. "That was a hugely inventive game that managed to throw a mind-boggling array of ideas at the player, from the car 'shift' mechanic, in which you could leap from one vehicle to another, to the time-shifting physics in later stages. It's something I believe you'd only see from a British racing developer."

Edmondson, who directed *Driver: San Francisco*, believes the recent resurgence of British racing games – this year alone brings us *Forza Horizon 2* as well as two new IPs in Sony's *DriveClub* and Slightly Mad's *Project Cars* – is linked to a rise in British dominance in the real-world car manufacturing industry and in motorsport as a whole. "Look at Mclaren's incredible new road cars, for example," he says. "Lotus looks like it may finally be back on track; Aston Martin has secured new investment and is doing great work. Rolls-Royce, Bentley, Range Rover and Jaguar are all flying. There is just so much focus back on the UK again when it comes to automotive, so the passion has returned for game developers." ▶



**Gavin Raeburn (top) and Stephen Hood**



**2001: Project Gotham Racing (Bizarre Creations)**
**The spiritual follow-up to *Metropolis Street Racer* added New York to the list of cities and tweaked the Kudos system, but also improved on the detail of its car and city models.**



**2007: Colin McRae: Dirt (Codemasters)**
**Before *Grid* rebooted the *TOCA* series, *Dirt* saw Codemasters shaking up *Colin McRae*, introducing a slew of new events, a festival atmosphere, plus new types of off-road vehicles.**



**2008: Race Driver: Grid (Codemasters)**
***Grid* quietly introduced a feature whereby the past few seconds of a race could be rewound, allowing for mistakes to be undone – an idea Turn 10 Studios borrowed for *Forza*.**



**2010: Blur (Bizarre Creations)**
***Blur* transposed *Mario Kart*'s weaponised tussles onto neon-soaked street racing, in the process fixing the tyranny of the Spiny Shell with a well-balanced rock-paper-scissors selection of power-ups.**

Hood, however, remains unconvinced. "I'd say we're more likely to deliver ahead of the worldwide competition across a variety of motorsports, but the game has moved on in recent years," he says. "There is an enormous expectation from the customer these days, certainly in terms of content. If you aren't the absolute best in a particular area, you can quickly become a jack of all trades, and soon after you'll not be thought of as being able to compete with very focused titles [such as] *Gran Turismo* and perhaps more latterly *Forza*. We still have the heritage, the people and the talent. We just need to look a little further ahead and give our talented development studios the time to deliver those special, genre-defining games."

One team looking further ahead than most in order to create a genre-defining motorsport title is Slightly Mad Studios, which at the time of writing is working on the final tune-up of *Project Cars*, a game that aims to offer an alternative to *Gran Turismo* and *Forza*. "We want to break the mould of the traditional 'grind for cash and XP' mentality seen in most contemporary racing games," says **Andy Tudor**, the studio's creative director. Ironically, this was a style of design that the studio helped pioneer in *World Of Speed*. But in Tudor's words, "You have to keep innovating, otherwise the genre goes stale."

Tudor believes that, with *Project Cars*, the team has created a new graphical benchmark. "We're at a point where we've passed the uncanny valley in terms of the graphical quality of the vehicles and immersion we wish to capture onscreen. There's advanced particle and turbulence systems, fluid and soft-body dynamics, [and] larger packs of cars on the track. These things add challenge and immersion – it's not just for the sake of aesthetics."

In terms of the future of British racing games, Edmondson believes there's scope for improvement within the bounds of currently available technology. "Far more can be done with realistic damage," he says. "Manufacturers tend to be resistant to it, though, for obvious but frustrating reasons. That said, it's hard to imagine how the cars can become much more realistic. Perhaps another decade of hardware advancement and we will have graphics that are indistinguishable from reality."

Predictably, perhaps, considering that *Forza Horizon* is a game that focuses more on the fun and culture of motorsport than its nuts and bolts, Raeburn is less interested in realism than other forms of accomplishment. "Fifty years from now, developers will still be asking for more graphical power," he says. "But I think many of the gameplay innovations of the future will come through connected online experiences. Not just racing together, but building and sharing content, forming communities, receiving regular content updates digitally delivered to you. Racing games will become entire platforms that continue to grow and develop, driven by the needs and wants of the player. The days of buying a racing game and finishing it within a week feel very dated."

**Not everyone in** the British racing game scene agrees that more is better, however. "We're drowning out players in more cars, more tracks, more series," explains Hood. "I think we need to ignore the demand for more content and spend more of our time crafting the experience. We need players to care about their vehicles, we need players to care about the virtual world in which they race, and we need to ensure it is easy to get in and compete. Developers need to make far more robust and polished experiences."

For Wilson, UK-based developers typically flourish when offering focus, rather than sprawl. "British titles excel when they focus on a particular type of racing and immerse the player in that subculture," he says. "That said, the hardest challenge for any racing game is pleasing your core racing audience while still attracting other gamers to pick up your game. If racing studios keep trying to 'out-niche' each other, you end up in an ever-decreasing red ocean where you're only taking market share off each other. That's why games like *Forza Horizon* have been so popular. They have a broader 'driving' appeal than a track racer, which can come across as a bit stuffy and technical to mainstream gamers if you're not careful."

The British racing game industry may be divided with regard to its future direction, but wherever it's heading next, those driving invention and progress agree that they do so thanks to past victories. "Our track record of making quality racers over many years in part derives from inherited knowledge from studios that started in the 1980s and '90s," says Wilson. "That knowledge has spread out to younger developers, so it's become a sort of self-fulfilling loop."

Crammond, meanwhile, views his legacy with typical British self-effacement. "I probably innovated a lot of what you see these days in the racing sim genre merely by virtue of the fact that no one else was making Formula One sims when I started," he says. "That said, I like to think I laid down a standard for the genre that others have to better." ■

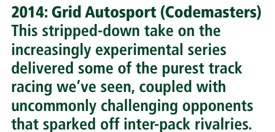


**2010: Need For Speed: Hot Pursuit (Criterion Games)**
***Hot Pursuit* marked the introduction of the much-reused Autolog, letting players compare high scores, issue challenges and share posts, adding a multiplayer metagame to its career.**



**2012: Forza Horizon (Playground Games)**
**A spinoff from the main series, *Horizon* ditched circuits in favour of open road racing, asking players to drive between events within its titular motorsport festival.**





**2014: Grid Autosport (Codemasters)**
**This stripped-down take on the increasingly experimental series delivered some of the purest track racing we've seen, coupled with uncommonly challenging opponents that sparked off inter-pack rivalries.**



**2014: DriveClub (Evolution Studios)**
**Evolution's PS4 debut astonishes visually (even before the dynamic weather gets plugged in) and aims to take the sting out of competitive racing by awarding points for driving technique as well as podium finishes.**







TOP **Forza Horizon** took the series onto open roads. ABOVE **Forza Horizon 2**, meanwhile, removes the barriers completely. LEFT **The Crew** is a driving game that's also an MMOG

# "Perhaps another decade of hardware advancement and we will have graphics that are indistinguishable from reality"

RIGHT **Slighty Mad Studios' crowdfunded *Project Cars* aims to be the definitive driving simulator, and is directly targeting the *Gran Turismo* and *Forza* series**



# NEW FOR OLD

Few development scenes could be more niche than creating games for bygone consoles, but it's a hardy niche indeed. Meet the hobbyists and publishers keeping old systems alive

**By Richard Moss**

# HIPSTER. INDIE. ALTERNATIVE.

There are many names to describe subcultures, in time subsumed into the public consciousness and dispensed as labels. But there's no label that quite sticks to **Falco Girgis** and his ilk. What they do is far too under the radar for that.

Girgis is the creator and lead engine architect of Dreamcast game *Elysian Shadows*. The first thing that makes his work so unusual is that he began it in 2004, three years after Sega discontinued its platform and quit console-hardware production for good. But what started off as homebrew has evolved. A decade later, *Elysian Shadows* finally nears release, having been successfully funded on Kickstarter in August this year. It's now a split-run production made by a full team, and is coming to more modern systems such as PC, Android, Ouya and iOS as well as Dreamcast in the winter of 2015.

*Elysian Shadows* today is a 2D RPG and a paean to the 16bit era, fusing together elements of classic *Final Fantasy* and *Secret Of Mana*, but one with modern physics, audio and lighting. As for what got it started, Girgis recalls that he wanted to make a 2D roleplaying game in the spirit of *Chrono Trigger*, only with the absolute best that Dreamcast could offer.

He had a lot to learn. "I really grew up in the Dreamcast scene," he recalls, "helping to unlock the secrets of Dreamcast's hardware and learning to render sprites on the platform before I could even do the same on my PC." Girgis also taught himself C, then recruited his younger brother and best friend to help make his passion project.

The long journey to bring a new Dreamcast RPG to market has been documented in remarkable detail. "Soon after development began," Girgis says, "we began recording our late-night development sessions, so that we could use the footage as unlockable in-game content for players once they beat *Elysian Shadows*." In October 2007, Girgis and his team decided to put the videos on YouTube instead. They called it Adventures In Game Development.

This video series gained a strong following outside the Dreamcast homebrew scene, eventually convincing Girgis and his evolving cast of team members to re-architect their *Elysian Shadows* engine to be multiplatform so as to reach a broader audience. The team's vision may have scaled up, but Girgis can't let Sega's console go. That version "has become a personal quest".

*Elysian Shadows* is intended to push the console, with a custom video driver incorporating features such as hardware bump mapping and dynamic lighting. "We really want to become something of a swan song for Sega's little white box," says Girgis. "[*Elysian Shadows* is meant to be] a long-standing tribute to the console that innovated so much – online gaming, visual memory cards, beautiful graphics – but wound up burning out and dying young."

***Elysian Shadows* might** do even more to keep Sega's final console going. When we previously documented the hackers, dreamers and creators making commercial titles for obsolete consoles, in **E**164, it highlighted how many homebrew games for vintage hardware required either custom assemblers or were rehashes and updates of older ideas and base code. That's still the case today, but with *Elysian Shadows*' preorder and Kickstarter sales being Dreamcast dominated, Girgis has decided to release the team's custom-built development tools alongside *Elysian Shadows*. "We think releasing these tools and allowing you to basically create your own Dreamcast games with them will be something huge that the Dreamcast community doesn't currently have," he says.

Girgis and the *Elysian Shadows* production team might be at the forefront of tool development for a discontinued system, but they are far from ▶



Falco Girgis is driving Dreamcast RPG *Elysian Shadows*. *Last Hope* is an *R-Type*-alike in which you can rotate a weapons pod around your ship. *Sturmwind*, which also has omnidirectional fire. *Rush Rush Rally Racing* follows the classic *Micro Machines* template

alone in keeping it on life support, nor are they the first to straddle releases across both deceased systems and modern platforms. In 2007, NG:DEV.TEAM released sidescrolling shooter *Last Hope* on the console, German developer Duranik put out shoot 'em up *Sturmwind* last year to a modest reception, and Netherlands studio Senile Team's *Rush Rush Rally Racing* came to Dreamcast in 2009, before finding a second life on Nintendo hardware via WiiWare in 2012. For the time being, however, other would-be Dreamcast developers lacking the wherewithal to build their own tools face a conundrum: they can dabble in modding the likes of *Doom* and Senile Team's freeware *Streets Of Rage* tribute *Beats Of Rage*, which respectively allow for easy creation of knockoff firstperson shooters and sidescrolling beat 'em ups, or they can dive deep into code with the KallistiOS development library.

**NO LONGER A SMALL-TIME PURSUIT FOR LONE HOBBYISTS, THIS SCENE HAS BECOME A VERITABLE COTTAGE INDUSTRY**

With the *Elysian Shadows* toolkit, Girgis suggests, it will be possible to create all manner of 2D and pseudo-3D games without necessarily doing a lick of coding – or at least with nothing more than Lua scripting – which could make Dreamcast a hobby development wonderland.

The effect of these tools on the market is impossible to predict, but right now retro homebrew titles find a surprisingly dedicated audience, explains **René Hellwig**, an artist and developer who was involved in founding both NG:DEV.TEAM and HuCast. (The latter is the developer behind *Dux* and its sequels). While his fanbase may be largely Dreamcast and Neo Geo die-hards eager to amass complete collections, "they also seem to care about playing our games and not just buying them only for [collecting]".

Like Girgis, the teams have had to compromise on visual fidelity to keep games on a console as old as Dreamcast. "There are limits in RAM for graphics," Hellwig notes, "which means that we sometimes have to cut graphics out of the game to make them fit the system's graphics RAM."

Still, Hellwig manages to crank a little more out of the hardware each time around. His signature series, *Dux*, for instance, has gone through multiple releases, progressively polishing what came before. "I felt it was about time to fulfil my promise to deliver a more well-balanced and polished *Dux* game," Hellwig explains. And so *Dux 1.0* gave way to *Dux 1.1* and then *1.5*, and there's also a *Redux: Dark Matters* remake, all available to buy in professionally printed packaging.

**Homebrew development isn't** limited to Dreamcast, either. WaterMelon made its name on the scene in 2010 with Mega Drive and Sega CD RPG *Pier Solar And The Great Architects*, renowned for being the first original Mega Drive title published in the US since 1998. Spurred by *Pier Solar*'s success, first on the dead console and then more recently on Kickstarter (where it raised $231,370 for a HD port to Dreamcast as well as several modern systems), the team has professionalised and grown to the point where it can support other developers working on old tech.

Indeed, the *Elysian Shadows* team announced in May this year that WaterMelon would be helping to produce physical copies of its game as well as to fund some of the development. "What [WaterMelon] did with *Pier Solar* on Genesis a few years back is very similar to what we set out to do with *Elysian Shadows* on Dreamcast," Girgis explains. "So you can imagine how excited we all were when we got an email from Tulio [Adriano], WaterMelon's president, offering us a publishing deal."

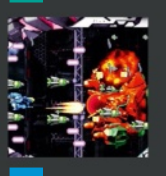
No longer a small-time pursuit for lone hobbyists, this scene has become a veritable cottage industry, although it can't sustain full-time incomes for many. Instead, these hackers and dreamers do what they do out of passion. They can't let go of the systems they loved when they were younger, or of the idea that their beloved old hardware has more potential – more life in it – than the play-and-discard cycle that the mainstream has settled into will allow. They also exhibit an enduring nostalgia for old forms of game, as the many homages, rehashes and remakes of the classics illustrate. And many of them, together with their audiences, feel left behind by the game industry's pursuit of ever bigger productions, of increasing complexity and realism.

*Dux* may draw on *R-Type*, but it's much more vividly coloured than Irem's classic shooter. *Pier Solar And The Great Architects* is a massive 16bit RPG that follows a young botanist on a quest to cure his ailing father. *Beats Of Rage* and the OpenBOR engine that powers it offer homebrewers an easy ramp onto creating their own retro homage

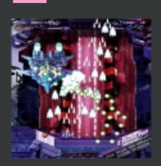
# NEW BREW

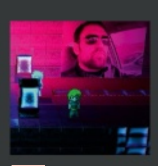
A taster pack of games fermented from passion for the past









WaterMelon's turn-based and story-heavy Japanese-style RPG **Pier Solar And The Great Architects** came to Sega's Mega Drive in 2010, and was received warmly by those who follow the scene, also generating a bundle of news headlines. It's recently had an update for Dreamcast as well as more modern platforms.

NG:DEV.TEAM's fifth Neo Geo shoot 'em up, **Razion**, is due this autumn. It will offer six sidescrolling stages filled with action, and the developer has made a point of providing a novice mode for genre newcomers.

Senile Team's **Rush Rush Rally Racing** is a multiplayer-focused arcade-styled racing game. It first arrived on Dreamcast in November 2009, and has long since sold out, but its WiiWare version is still around. What you can't get via the download is the bonus soundtrack CD, the stickers or the full-colour dual-language (Japanese and English) manual that came along with its Dreamcast disc.

**Sturmwind** came to Dreamcast last year with 16 levels, SD card support, configurable controls, an FMV introduction and loads more. For all the extras, the premise was simple: if it moves, shoot it.

**Ghost Blade** is René Hellwig's next Dreamcast shoot 'em up, with five stages and three different modes slated for its 2015 release. "Think *DoDonPachi Resurrection* and *Star Soldier R* and you will get a clue how *Ghost Blade* will play," Hellwig teases.

**Elysian Shadows** is a technically ambitious RPG for Dreamcast in the spirit of *Chrono Trigger*. Its tale revolves around the intersect between technology and magic, and plays out across a massive world that takes in forests, deserts, dungeons, ruins, swamps and islands. No wonder it's taken so long to make.

When it arrived in January this year, **Nightmare Busters** was the first SNES game to be released in the United States since 1998. That's two decades after the twoplayer *Contra*-alike was cancelled. The release came in partnership with the original developers.

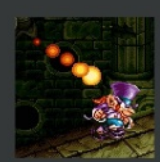
Aetherbyte's latest game, **Atlantean**, emerged this year as another first: the first PC Engine HuCard game since the mid-'90s. It plays like an underwater *Defender*, and you can shoot your way through four aquatic worlds.

Set in the mid-22nd century, **Robinson's Requiem** for Atari's Jaguar CD immerses players in a 3D survival adventure where they must find a way to escape an alien world without dying from disease or predators. It appeared on several other platforms in 1994, but the Jaguar version was stuck on hiatus until Songbird Productions picked it up in 2011.

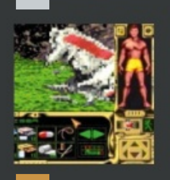
*Metroid*-inspired 2012 NES masocore platformer **Battle Kid 2: Mountain Of Torment** took its creator two years to develop, and with some 650 rooms and 42 music tracks, it's easy to figure out why. It follows 2010 release *Battle Kid*, which developer Sivak Games cites as being the first major NES platformer since *Sunday Funday: The Ride* was released in 1995.

Only 80 copies were made of French developer Furrtek's quirky, *WarioWare*-inspired Game Boy minigame collection **Super Connard** in 2012. Both the ROM and source code are available for download from Furrtek's website.

Mike Gleason released **Daleks Forever** for 68k Macintosh in 2011 as a homage to quirky 1984 title *Daleks*, which pitted players in a desperate struggle to survive waves of murderous Doctor Who enemies.
















# THE 16BIT ERA ISN'T OVER.

Not, at least, for **Brandon Cobb**, the man behind retro publisher Super Fighter Team. "After 1995, I slowly began to lose interest in where the market was going, preferring to focus on the classics I held, and still hold, so dear," he explains.

Over the past decade, Cobb has published new games on Mega Drive, SNES, Atari Lynx, PC and Symbian series 60 phones. His passion can be traced back to a Taiwanese alternative to *Street Fighter II* that he bought on PC. Like so many of the scene's developers, it's not merely the hardware of yesteryear he venerates, but game designs too.

"I wanted to produce a new, updated version of *Super Fighter*," he says, "featuring new graphics, a new soundtrack and so on." But he lacked the funds to pull it off, so he invested in a smaller project instead – localising and updating Taiwanese Mega Drive RPG *Xin Qi Gai Wang Zi* into *Beggar Prince*.

It was such a hit that Cobb elected to shelve the idea of a *Super Fighter* sequel in order to focus on a mix of localisations and abandoned games. So followed the likes of an English translation of *Sango Fighter 2* for DOS and run-and-gun shooter *Nightmare Busters* on SNES.

He did finally get to realise his *Super Fighter* dream last year, however, when Super Fighter Team put together a special 20th-anniversary edition of the game with the blessing of its original creators. Cobb even got to demo it to them face-to-face in Taiwan. "That moment meant more to me than a million product sales ever could," he says.

Ambition and success take on very different connotations for the likes of Cobb. *Beggar Prince* is Super Fighter Team's biggest hit, selling 1,500 units across three print runs – hardly Activision numbers. Cobb, however, prides himself on quality and on earning the respect of the vintage-gaming community. Profit is ultimately a secondary concern. Every developer putting games out on old systems is in it because of an enduring love of older hardware, and this same sentiment unites the community that feverishly consumes their output and discusses it on forums and fan-run websites.

Aetherbyte founder **Andrew 'Arkhan' Darovich** found his passion through an unusual route: music. It started in 2000, when he picked up a C64 and fell in love with its sound chip. "I'm also a musician," he explains, "and I am really into synthesisers, so I tend to gravitate towards things that have sounds that I like."

That gateway drug soon led to PC Engine development. Darovich grew up with the cult console, and jumped at the opportunity to make a game for it as a project in a college class. The result was *Insanity*, a *Berzerk*-alike action game released in 2009. "People seemed to like it, even though it was kind of rough," Darovich says, "so I kept at it and started making all the other games."

Others soon signed on to help create art for him, and three more full games plus an MSX demo have since followed, with *Insanity* and *Pyramid Plunder* – an Indiana Jones-inspired maze game with a touch of *Pac-Man* – both pressed on CDs. Meanwhile, recent release *Atlantean*, an underwater shoot 'em up, can claim to be the first PC Engine HuCard release in some 20 years, a move made as a direct result of people at conventions telling Darovich they only have the base PC Engine hardware, not the CD add-on.

His work feeds a passionate community of PC Engine fans. "We're called OBEYers," Darovich explains, an in-joke referencing the film They Live. The console's homebrew development scene is paltry at the moment, but Darovich hopes that Aetherbyte and a chiptune-authoring kit the team made called Squirrel will attract more interest.

The sense that other people get a kick out of his work is what makes the effort worthwhile, though. "I get a lot of enjoyment out of setting up and

"I BEGAN TO LOSE INTEREST IN WHERE THE MARKET WAS GOING, PREFERRING TO FOCUS ON THE CLASSICS"

*Super Fighter* begat Super Fighter Team, which in turn made the game's 20th anniversary edition. *Beggar Prince* broke a long drought on Mega Drive. Run-and-gun game *Nightmare Busters* did likewise for SNES. *Insanity* is a PC Engine clone of *Berzerk*

demoing this stuff at local conventions," he says. "The look on people's faces when they realise they're looking at brand-new games for really old machines is pretty much the greatest thing ever."

And now that he's got some experience under his belt, Darovich is looking further afield. "It makes it a lot easier to figure the machine out and develop a useful library of code if you are making smaller games," he says. And so his next step is to up the ante on originality, stepping away from the safety net of reworking the classics, hoping to court a larger audience.

Aetherbyte won't be abandoning PC Engine, but "it would be nice to have 10,000-plus people playing our games instead of the 300 to 500 that end up playing [them] for PC Engine," Darovich admits. "We're imposing graphics and sound limitations so that [our work] feels like a 25-plus-year-old game, even though it isn't, because the future of games is to stick true to the games from the past that have stood the test of time."

**For Carl Forhan,** the owner of Songbird Productions, that's a huge part of the philosophy, dividing his time between updating cast-off old games and developing his own retro-inspired titles. Where he differs from Darovich is that it's all about Atari for him. He's been a fan since he was ten years old, when his dad bought a 2600. "We played that thing like crazy," he says. "Even singlescreen games like *Laser Blast* or *Space Invaders*."

Those memories stuck with him, and his mid-'90s discovery of Jaguar and Lynx sparked something in him. "I was so intrigued that Atari still made hardware that I couldn't resist [digging in]," he says. The spell was completed when he found other hobby developers online.

"In 1998," he told us in **E**164, "I created a sound tool for Lynx called SFX to help me in my own game development." He asked online if anyone wanted a cart with this tool, and around 100 people signed up in just a few weeks.

Forhan then secured the rights to an incomplete *Defender* clone for Jaguar called *Protector*, which he published in 1999 after fixing its bugs and adding in extra levels, enemies, songs and effects, including about 30 per cent of his own code.

## NUCARD

**In order to work around the lack of access to PC Engine's proprietary HuCard cartridge format, the Aetherbyte team had to create its own version. "HuCards are a brilliantly designed medium," says Andrew Darovich, "which is why they were also a lot of work to make. They're super thin, and the board and ROMs are actually under that black part at the front of the card, so we don't have the luxury of just putting a PCB in a shell and calling it a day. Our cards hide the ROM chip and try to look as close to the real deal as possible, even though we aren't using the same kind of technology. We have a board that is as long as the card, covered by a plastic cap. Doing the cards like the real ones is not really feasible, since the technology is expensive, and requires a pretty intense setup."**

*Protector*'s still available for purchase today, as are most of the 20-odd titles he's put out.

"The most surprising thing to me is that I continue to sell a steady stream of games each year, even for the games I published in 1999. It's not a huge amount – maybe a couple of dozen carts per title – but it's really cool to think there are enough collectors taking an interest in old Atari systems to keep it going."

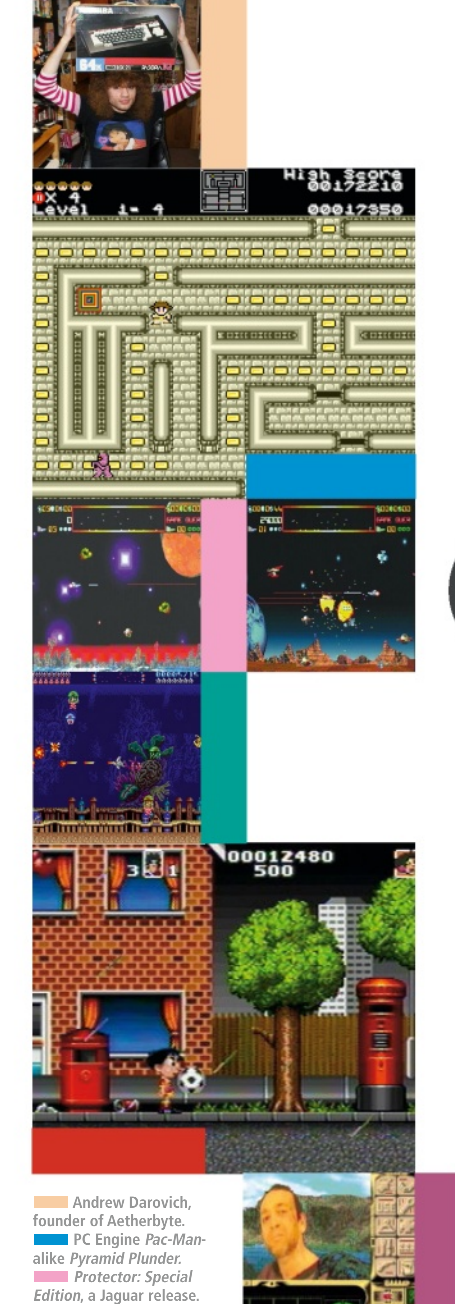
This appreciation of old hardware and those who dare to create new games for it is what drives Forhan to stick around. "I did take a few years off from active development to allow me more time with my family," he says, "but I still managed to release *Robinson's Requiem* in 2011, which feels pretty recent to me." He's just finished putting the final touches on an all-new Jaguar CD game, *Protector: Resurgence*, which expands upon cartridge release *Protector: Special Edition*.

"Now that I've got the developing bug again," Forhan confesses, "I'd really like to pursue another Lynx or Jaguar project. There are many half-finished projects I have access to, and many more ideas for original games I'd like to pursue someday."

Both of these avenues are important to him, albeit for different reasons. Forhan describes the likes of *Robinson's Requiem* and *Soccer Kid* as "lost pieces of Atari history", which he explains were essentially complete and ready for publication only to be snuffed out of existence when Jaguar sales slowed to a crawl. Songbird allows him to give them the life he feels they deserved.

As for original games, Forhan wants to show his chosen consoles for what they could have been. "I think Jaguar could have lasted longer if Atari had focused on its strengths and especially tapped into more arcade ports," he says by way of example. "It's about supporting fellow Atari fans with new games and seeing old hardware do cool things."

And if those cool things happen to be blatantly similar to the old things, as is often the case across this backwards-looking scene? It's not so strange, Forhan argues. "All games are rehashes of existing games," he says, "so why make anything new? Because we can." ■




Andrew Darovich, founder of Aetherbyte. PC Engine *Pac-Man*-alike *Pyramid Plunder*. *Protector: Special Edition*, a Jaguar release. *Atlantean* borrows much from *Defender*. Krisalis's *Soccer Kid*. *Robinson's Requiem* was ported to Jag in 2011

# THE MAKING OF...



# REZ

How Tetsuya Mizuguchi's techno shooter put players in a trance

**By Daniel Robson**

**Format** Dreamcast, PS2
**Publisher/developer**
Sega (United Game Artists)
**Origin** Japan
**Release** 2001

Flying forwards along a seemingly endless wireframe corridor, the pulsating humanoid character lines up a reticle and fires. A wash of rhythmic hi-hat bursts triggers as the shot connects, a quantised sound effect that also instigates a rumble in the player's hands and a vibration under their backside. The unity of vision, sound and touch boosts the player's focus, pushing them ever onwards to ecstasy.

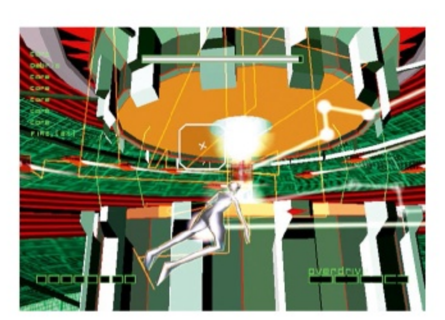
*Rez* was a new kind of videogame. Originally released in 2001 for Dreamcast and PS2, it sought to deliver a synaesthesia-like experience through synchronised stimulation of the senses. Its creator, **Tetsuya Mizuguchi**, an iconoclastic auteur working for Sega at the time, would go on to become one of the most celebrated game designers in history.

He was already hot stuff. After graduating from Nihon University College Of Art, Mizuguchi joined Sega in 1990. He quickly earned the company's trust, most notably with his design for 1994 arcade hit *Sega Rally Championship*, and so late in that same decade he was given his own internal studio, the group that in 2000 would become known as United Game Artists.

"Actually, before that we were just known as the Sega-AM9 R&D Division," Mizuguchi recalls as we chat in a quiet Tokyo café. "*Sega Rally* was already out, and I was putting together a new team to work on *Space Channel 5*."

Mizuguchi moved into an office in Shibuya, central Tokyo, to work on his new game, itself an eccentric music-based concept, in which futuristic alien battles are settled, and hostages saved, with space-funk dance-offs. As recruitment for the game kicked off and his team grew, Mizuguchi started to look ahead to the next project, prototyping it with a few members of the *Space Channel 5* crew. "I didn't give Sega a written proposal for *Rez*; I gave them a demo," he explains. "I'd had the idea for it a long time ago, but only very roughly."

**His original vision** was for a game that created a feedback loop through music and shooting. But it was through discussions with his programmers and designers as they worked on *Space Channel 5* that the idea really started to take shape. The *Rez* team spent about 18 months on preproduction before the game was greenlit, spending about another year-and-a-half in full production after *Space Channel 5* had shipped. "Once we'd figured out the mechanics in preproduction, the rest of the game came together extremely quickly," Mizuguchi says.



**Despite *Rez*'s reputation, Mizuguchi laments a lack of polish and tuning, describing a "love and hate" relationship with it**

*Rez* was an on-rails shooter, and since many of the team at United Game Artists had been drawn from *Panzer Dragoon* studio Team Andromeda – including programming director Mitsuru Takahashi and art director Katsumi Yokota, the latter of whom would later work with Mizuguchi again on *Lumines* – it's tempting to think that their expertise made this new game's mechanics an obvious choice. After all, by dictating the action's tempo, it's easy to then match it up to the rhythm of the music.

> "I DIDN'T GIVE SEGA A WRITTEN PROPOSAL FOR REZ; I GAVE THEM A DEMO. I'D HAD THE IDEA A LONG TIME AGO"

Mizuguchi says he had thought as much from the start, but that the Andromeda guys resisted at first, preferring to try something different. "The staff who worked on *Panzer Dragoon* actually had no interest in making another 3D shooter," he says. "They wanted to do something different and to give the player more freedom. It was important to maintain everyone's motivation and to try out their ideas, but we found that the more freedom you had, the less the player would connect with the music. Eventually, we came back to the rail shooter idea. It was important to have some limitations."

Even as the team explored other ideas, shooting was the one constant. Some early notions were of environments that you could traverse freely, or where you could turn the camera through 360 degrees. And other genres entirely were suggested, such as a puzzle game. Mizuguchi, however, was adamant that shooting was part of his original inspiration, since he was sure that the synchronicity between firing shots and the beat of the music would feel satisfying.

"We also tried having the cursor change colours, which would affect the music, but it was too complicated," he says. "I wanted the player to be able to shut off their logical thought and to play based on intuition and instinct alone. Like minimalist art."

Indeed, many of the artists on *Rez* were more readily associated with disciplines other than games. Mizuguchi discovered multimedia artist Jun Kobayashi – eventually credited as director, but also one of the original conspirators on the tech demo – as he searched for people who understood the connection between music and visuals, such as VJs and music video makers.

It was a period of intense creativity for Mizuguchi. During the preproduction and production of *Rez* and the production of *Space Channel 5*, he all but lived at the UGA offices, returning home only to take a bath after long days and nights focused on creating and tuning new mechanics. Music fed his mind, especially minimalist European techno, but also classical music, opera and The Beatles. On overseas work trips, he would go to raves, clubs and festivals. But that wasn't new – it was at one such event in Zürich in 1997 that the idea for *Rez* had first become lodged in his mind.

"Wassily Kandinsky was a big influence on me, and still is now," Mizuguchi says. *Rez* was eventually dedicated to the painter. "Surrounded by about 40,000 people in a stadium in Zürich, all dancing together to the music and lights and visuals, I suddenly remembered that I had heard about synaesthesia as a student. This was what Kandinsky was trying to illustrate in his paintings, and rather than put it on a canvas, I could create something digital to express something similar."

The music was essential to this. The *Rez* soundtrack might include artists such as Adam Freeland, Coldcut and Japanese techno producer Ken Ishii, but Area 1 was created entirely in-house, with music by Keiichi Sugiyama of Sega's Wave Master department. Over a ▶

long period of careful tuning, Mizuguchi's team tweaked both gameplay and soundtrack to get the balance right, before using Area 1 as a demo to show external musicians what was expected.

"I explained to each of the musicians what the emotional line of their area was, and how it would build from the start through to the boss battle, and then they would make a first draft of their song," Mizuguchi says. "I also had to explain that we would be making separate use of the various elements of the song – the drums, the guitar, the vocals. Those sounds would be produced when the player hit an enemy. It required a lot of tuning and collaboration. You couldn't just nail it on the first attempt, and only a certain kind of musician would get that. It was like making a sculpture and all chipping away at it together. I'll never forget that chemistry."

One major disappointment came when the rights to a song the team had been expecting to use fell through. "We were negotiating to use Fatboy Slim's track The Rockafeller Skank, and up until the final month of development, that's the song we used for Area 2," Mizuguchi says. "We actually made the whole thing. And then a month before the end, we were told that we couldn't use it, because the song contained so many samples." Indeed, Fatboy Slim, ex-Housemartin Norman Cook, had himself faced problems clearing the samples when the song was released.

"It was awful, but we had to rebuild the whole stage with only a month to go," Mizuguchi explains. "The sound designer, Ebizoo [Tanuma], had been on the project from the start, and he made a new song for Area 2."

It has long been held as truth that the title for the game came from the track Rez by British techno outfit Underworld, but Mizuguchi says it was really **Edge** staffers Jason Brookes and Simon Cox who suggested the name on a visit to United Game Artists in the late '90s. Mizuguchi knew the pair, who at the time were editor and deputy editor respectively, from previous meetings, and he offered them a sneak peek of his game, which was then known as *K-Project* – the 'K' standing, of course, for Kandinsky.

"I don't remember whether it was Simon or Jason, but one of them looked at it and said, 'How about *Rez*?'" Mizuguchi beams. "I asked what it meant, and he said it was a reference to the movie Tron. In Tron, when someone dies they 'derez', and this was the opposite, because in our game objects came together to create life, so it seemed perfect. And then, as I searched online after that for the word 'Rez', I found the Underworld song."

*Rez* was released in Japan in November 2001 on Dreamcast and PS2, then arrived in Europe the following year in January and February respectively on the two platforms, and in North America on PS2 only in January. In Japan, the PS2 version came packaged with the Trance Vibrator, a sit-on peripheral that connected via USB to deliver extra feedback to the player's backside and which prompted plenty of sexual innuendo in the west. "I thought it was quite funny," Mizuguchi laughs. "That's a very human reaction."

*Rez* was well received among press and players. One common criticism was its short duration for a full-price title, with just five main areas and some extra play modes, and perhaps this contributed to the disappointing sales figures. And yet the game's legacy has endured: *Rez* is consistently voted highly in best-games lists, has won awards, and was shown as part of an exhibition at the Smithsonian American Art Museum in 2012.

"I was nervous when *Rez* was first released," Mizuguchi admits. "The feedback you get is different than what you get after a year, or five, or ten. Yes, it's a short game, but a lot of people played it over and over again. Now I can be like, 'I told you so,' but at the time I didn't know yet whether people would do that. The reception the game gets now, 15 years on, means more to me than the initial reception.

"I think the reason it is still so warmly received is that it touched a deep nerve. It tapped into something primitive in a new way. It took so much effort to achieve that, but now I feel it was all worthwhile."

**Drawing on themes** of information overload and digital revolution, *Rez* still seems as relevant today as it was at the turn of the millennium. "I wanted to make a story that would stand the test of time and never get old," Mizuguchi says. "I wrote a lot of backstory for *Rez*, but we left nearly all of it out. Instead we relied on themes: computers and viruses, life, reincarnation. We kept the philosophy as universal as possible, and told the story through design."

Mizuguchi left Sega in 2003, when the company merged with pachinko maker Sammy. He decided to pursue his own path, founding Q Entertainment, and would go on to make music-puzzler *Lumines* and *Child Of Eden*, a spiritual prequel to *Rez* on 360.

Mizuguchi left Q Entertainment last year, and now works freelance on service-based mobile titles, but says he is planning a return to traditional videogames in the near future. Although nothing is yet confirmed, he says he hopes to eventually make a third *Rez*-style game.

"I had always wanted to make *Rez* as a trilogy, and for the sequels to come along as the technology allowed new forms of expression," he says. "I was waiting for that [before making *Child Of Eden*], and I was always thinking about it. I still am. If there was an amazing new type of display, or maybe virtual reality, I'd be interested. I'd like to try something new." ■

## Q&A

**Tetsuya Mizuguchi**
Producer, *Rez*

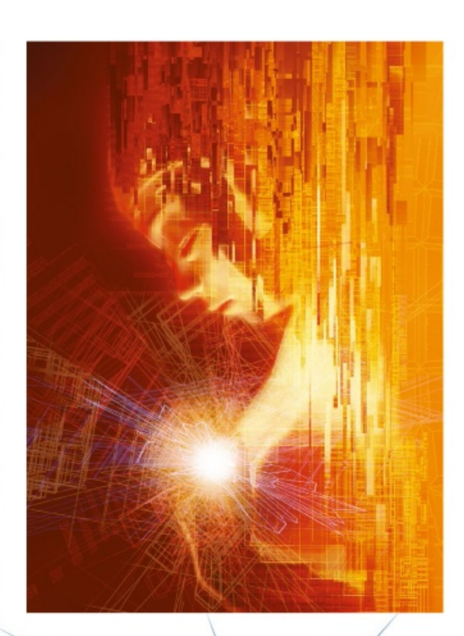
**Your first project at Sega was a hydraulic motion ride. Was that in any way a precursor to *Rez*?**
Yes, the motion ride moved in time to the music and visuals to create a good feeling, which definitely fed into *Rez*. In a way, that was the first step. If a motion ride was interactive, you'd have something like *Rez*.

***Rez*'s bosses were on a variable difficulty scale, so that they adapted to player skill. On what criteria did you base that calculation?**
I don't remember. But I wanted to make sure the player got a different ending depending on their skill, and would want to see what would happen if they played through again. I really wanted people to play it over and over again, and to have different results depending on their performance that day. The marketing team asked me how many hours of gameplay the game had, and I said, 'Several hundred!'

**Music games in the '90s experimented with mechanics, but now the genre has settled into a groove – tap in time with the icons. Is there a lack of innovation in music games today?**
Maybe, but it's not easy to find new ways to make music games, and there is risk involved. Those games do innovate in their own ways, too. *Rock Band* was a great innovation, and [Harmonix co-founder] Alex Rigopulos also tried new things with *Amplitude* and so on. He's a very artistic and creative person who makes blockbuster games that appeal to a lot of people. *Rez* is a different kind of game, but I think it's important to have both.





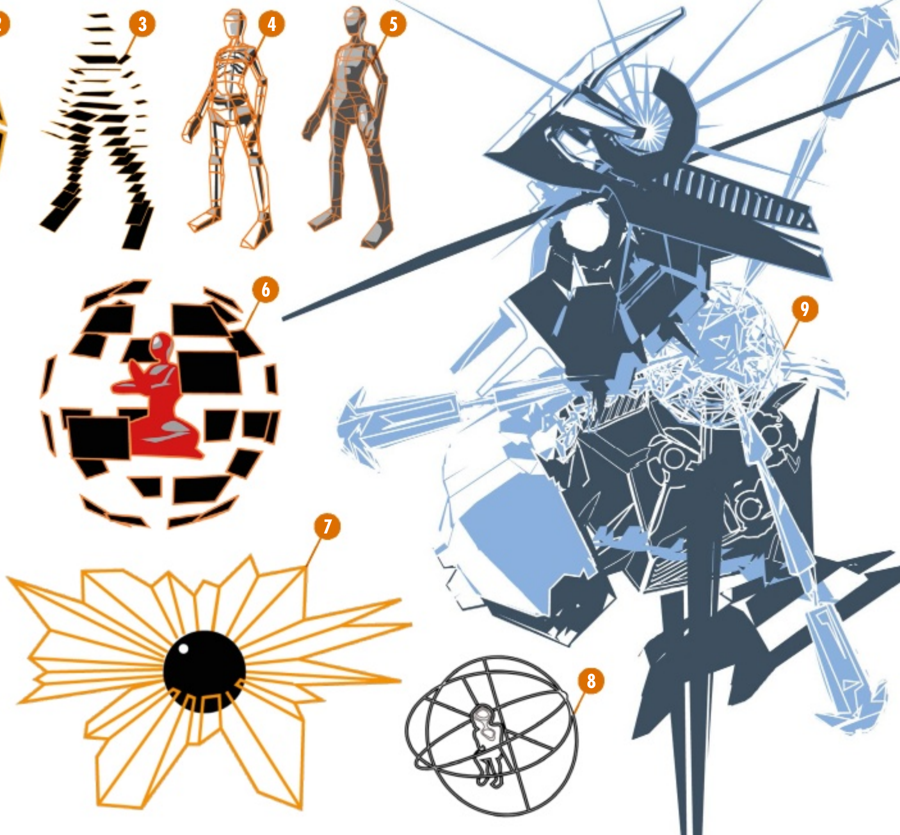




Katsumi Yokota



**1 The original concept for the game's story and world were fully fleshed out, but the team removed as much context as possible during development to give space to the player's imagination. 2 – 6 One of the game's themes is evolution, and the player's avatar evolves from a simple sphere to an ever-more human shape, eventually taking up the lotus position in search of enlightenment. 7 – 8 In later stages, this evolution temporarily transcends humanity altogether, taking the shape of a pulsating orb at one with the music, before finally reaching rebirth. 9 Bosses take the form of mechanical creations – such as a mirrorball – that move in an organic way. "They had to seem organic or they would not feel soulful," Mizuguchi says**





STUDIO PROFILE

# STUDIO GOBO

The south coast developer bringing a taste of British creativity to Disney Infinity

By Keza MacDonald




**Founded** 2011
**Employees** 40
**Key staff** Tony Beckwith (studio head, co-founder), Paul Ayliffe (art director, co-founder)
**URL** www.studiogobo.com
**Selected softography** *F1 2012, Disney Infinity, Disney Infinity: Marvel Super Heroes*
**Current projects** TBA

Despite the area's reputation as a bohemian gathering place for people involved in music, theatre and the visual arts, the seaside towns of Brighton and Hove have had a wavering track record in the digital sector. In the 2000s, the region's biggest studio of note was Black Rock Studios. It was acquired by Disney in 2006, only to be shut down in 2011 after its two flagship racing games, *Pure* and *Split Second*, failed to sell in big numbers, despite an enthusiastic reception from critics impressed by their fresh approaches. Littleloud, another Brighton institution, shut its doors last year after 13 in the industry.

More recently, however, tech startups and game studios have flourished, and Brighton's fast-growing and well-connected new community makes it an attractive place for anyone involved in videogames. In time, the death of Black Rock also turned out to be a good thing for the health and diversity of Brighton's development community. Around 15 new studios were seeded as Black Rock withered away, including Boss Alien, creator of the ludicrously successful mobile game *CSR Racing*, and fellow mobile developer ShortRound Games.

Studio Gobo, housed in spacious offices near Hove Station, also owes a debt to Black Rock, founded by four of its alumni – former studio head **Tony Beckwith**; **Paul Ayliffe**, Black Rock's art director; Jim Cailin, *Pure*'s technical director; and Tom Williams, former Black Rock technical director, now development director at Gobo. Formed in September 2011, its first project was helping Codemasters Birmingham finish off *F1 2012* in time for release. After that, Studio Gobo left racing behind. It has since worked on two of *Disney Infinity*'s self-contained Play Sets: last year's Pirates Of The Caribbean world, and *Disney Infinity 2.0: Marvel Super Heroes*' Guardians Of The Galaxy set.

"When I first came down here in 1999 from London, the only company at that time was Babel, who did testing and translation," Beckwith says. "They've moved to Canada now, but they used to be here, in these offices. So I started Pixel Planet, which then became Climax Racing, which finally became Black Rock. There were no game developers at all, but nowadays there's loads. I always thought that Brighton could be a hub. The demise of Black Rock has helped to build the whole ecosystem down here. Guildford was big at the time, there were lots of people coming off of Peter Molyneux's old studios and doing their own thing, and I always thought that Brighton could be like that. That's what's happened, now, and it's really good to see."




**Studio head Tony Beckwith (left) founded Pixel Planet in 1998. After the studio closed in 2011, he and three others, including art director Paul Ayliffe, founded Studio Gobo**

Beckwith doesn't like to call himself a studio head any more. Everyone at Studio Gobo technically carries the title of 'game maker', though their roles are naturally very different. Gobo has a flat structure without any layers of management, which is much easier to manage with a team of around 40 people working on one project at a time than with a Black Rock-sized, 150-strong workforce. Beckwith and the other co-founders started out renting a tiny room in Babel's offices, but the studio now occupies the whole floor, kitchen stocked with nine different types of posh granola included.

**"IN A WAY, WE'RE LIKE AN INDIE STUDIO, BUT WE GET TO WORK ON REALLY BIG TRIPLE-A PROJECTS"**

"In a way, we're like an indie studio – we keep it small here rather than big – but we get to work on really big triple-A projects, so we get the best of both worlds, I think," says Beckwith. "The situation nowadays is often that you either you work in a 300- to 400-man studio on triple-A for some big publisher, or you're in a small indie studio trying to scrape together a living making iPhone games. We have a foot in both worlds, so we're very lucky in that respect. The first *Disney Infinity* was a bit of a punt – we felt it should be successful, but until it actually comes out, you don't know whether it will go down well with kids and their parents. Thankfully, it did."

There's a certain irony in the fact that Studio Gobo has now spent the past few years working exclusively with Disney, given how that went for its founders last time around. But working with the company's classic properties – Pirates Of The Caribbean, The Incredibles, Cars, Toy Story and Monsters, Inc all featured in the first *Infinity* – was too tempting for them to turn down.

"That was the big draw for us from the very start," Ayliffe says. "Disney were a bit like, 'How do you feel about working with us, given the history?' But we thought, 'Why not?' Once we got to hear more about what *Disney Infinity* was about as a platform and a game, it was a no-brainer. Certainly, as a creative, it's something that anybody would want to get involved with."

Still, working with Disney has been far preferable to working for Disney, Ayliffe and Beckwith agree. "[Disney] is a big American corporation, so there were all these layers of corporate management that could stifle creativity, if we're honest," Ayliffe says. "It can be a bit risk averse. At Black Rock, we fought pretty hard and could come out with some good stuff. I think we all learned a huge amount being part of the Disney machine. On the whole, it was a really positive experience, but there's a lot to be said for being independent. As a startup, there's a lot of excitement around setting up your own thing. You're much more in control."

**The Pirates Of** The Caribbean Play Set that Gobo developed is a standout part of the first *Infinity*, with naval battling, surprisingly extensive ship customisation and 11 separate islands at which to drop anchor. It's probably the most technically ambitious of the three worlds that launched with the game – some achievement given that it had to be developed extremely swiftly. "It was intense hard work," Beckwith recalls. "We started work on it in September 2012 and it was submitted by the end of June."

The other parts of *Infinity* were being made elsewhere, mostly at the Disney-owned ▶







**Unsurprisingly, there's a lot of Disney-related memorabilia on desks and shelves around Studio Gobo's office. But representing the studio's diverse history, there are also collectibles from most other recognisable areas of geek culture, from Star Wars Lego to a mini Agent 17**

Avalanche. "Starting work on *Disney Infinity*, we had to learn the tools; the engines and the pipeline were all proprietary. It's all Avalanche's stuff," Ayliffe says. "We had to get up to speed on all their tech. For *Marvel Super Heroes*, we were already rolling." Much of the Pirates Of The Caribbean set, though, uses Gobo's own tech, particularly sailing – the water and ship physics were a particularly thorny challenge, which is one of the reasons that ships weren't included in the Toy Box, *Infinity*'s create-your-own-fun mode. They weren't compatible.

**In retrospect, Gobo's** gamble on *Infinity* was a great move: it was a good-quality game backed by licenses, the figures were gorgeous and eminently collectible, and *Skylanders* had more than proved that the model was a reliable one. But it's the Toy Box mode, a *LittleBigPlanet*-inspired sandbox that lets kids mix and match between Disney's many universes and create imaginative crossover fantasies – such as Jack Sparrow racing Sully along a racetrack around Cinderella's castle – that is its standout feature.

"I think the Toy Box element is really, really strong – the unstructured play, mixing things up however you want with no rules, kids building their own levels," Ayliffe says. "*Skylanders* doesn't have that and it's a big, big plus for *Infinity*. What we're ultimately trying to do [with the Guardians Of The Galaxy Play Set] is build things that can feed back into the Toy Box, unlike [Pirates Of The Caribbean's] ships."

Critical success wasn't new to Studio Gobo's founders, but commercial success is something they were less used to. Neither of Black Rock's games did well, despite their quality. Beckwith finds it particularly rewarding that risking a move away from the racing games the founders knew so well and into a genre in which they were less experienced worked out so favourably.

"It was quite disheartening at Black Rock that although *Pure* and *Split Second* were great games, they didn't have commercial success," Beckwith says. "And a lack of commercial success, as any studio knows, can make things a bit tricky. Here, we get to make something that we enjoy making, that our kids want to play… We worked on racing games for, what, 12, 13 years? At Black Rock, we kind of looked into making other things; there was a desire there to do something a bit different. What we've enjoyed most about *Infinity* has been working on something other than a racing game, because you get typecast and that can be difficult to escape. It's good to break out of that."

Gobo, meanwhile, seems to avoid safe bets. When *Disney Infinity 2.0: Marvel Super Heroes* was in production, Gobo was offered the chance to make a Play Set for perennial favourite Spider-Man, but ended up going with the Guardians Of The Galaxy instead. It was another risk, since this decision came long before the release of the movie that rescued Star-Lord and co from Marvel obscurity. In fact, the people working at Gobo were put in the position of not even being able to announce the game that they were working on until it was already finished, finally breaking the silence at San Diego Comic Con in July. To avoid suspicion, they couldn't even so much as click 'Like' on a Guardians trailer on Facebook.

**"TO AVOID SUSPICION, THEY COULDN'T EVEN SO MUCH AS CLICK 'LIKE' ON A GUARDIANS TRAILER ON FACEBOOK"**

Beckwith has two kids who play a lot of *Disney Infinity*; many of the other staff do, too. Some have even been roped in for testing now and then. Both of Gobo's Play Sets were put in front of plenty of children long before they reached store shelves. Indeed, the studio's playtesting room has a camera that allows the developers to observe how they're enjoying and reacting to the game, which can get chaotic – especially when groups of boys start trying out the Guardians Of The Galaxy Play Set.

Beckwith theorises that Disney bought Black Rock as part of an attempt to carve itself out a slice of the 6- to 14-year-old boy market – the company had younger children and girls sewn up, but it didn't have much for older boys, and racing games were popular with them. Shortly afterwards, Disney bought Marvel and Lucasfilm.

Riding on the back of the film, Guardians will be a sure-fire hit, but because the team had a year to make it, Beckwith feels like the quality of the work is higher, too. "I think we've made a tighter, more focused Play Set this time," he says. "The world exists on a smaller footprint, where Pirates was 11 islands and a huge ocean."

The future's looking good for Studio Gobo. It has just opened a tiny satellite studio of around ten staff in Zurich, located near the famed École Polytechnique Fédérale De Lausanne technical university, taking advantage of the access to new talent that it provides. Gobo's next project will be spread across both those studios, but it's not saying what it is. It's only natural to presume, based on both the extreme secrecy and the precedent, that it's Disney-related, but then Gobo is a studio capable of surprising reinvention. ■




1 *Disney Infinity*'s Pirates Of The Caribbean Play Set, with its swaggering Jack Sparrow and customisable pirate ships, was a standout.
2 Marvel's Guardians Of The Galaxy was a riskier prospect, developed in secrecy before the film was released. It takes you to Knowhere and allows you to fight alongside both Star-Lord and Gamora.
3 Gobo's first project was *F1 2012*, but after that it broke out of the racing genre that had defined its past.
4 Power Discs unlock items for *Infinity*'s Toy Box mode as well as character boosts




REVIEWS. PERSPECTIVES. INTERVIEWS. AND SOME NUMBERS

## STILL PLAYING

**Sleeping Dogs** PS4
Anyone who first played *Sleeping Dogs* on PC will wonder what, exactly, has changed here. Texture resolution is up – if you were a console player, at least – and Hong Kong is appropriately denser, but it's not without cost, with a framerate that renders some cutscenes almost unwatchable. A fantastic combat system and fine radio soundtrack do more than enough to justify another playthrough, if not the premium price tag.

**Spelunky** PS4
While the PC version already boasted 1080p visuals, creator Derek Yu has updated most of the game's textures for its PS4 release. Better still is the introduction of friends' ghosts in Daily Challenges, which appear at the site of their demise to offer clues as to what might be lurking in wait for you, and the ability to upload your own replays to the game's online leaderboards.

**Puzzle & Dragons** iOS
The daily morning news popup informs us that we're approaching 365 consecutive days of *Puzzle & Dragons* play, and it was somewhere around day 300 that we realised we'd missed out on something huge: a hidden Ultimate Evolution system that has made our favourite monsters staggeringly powerful. Almost a year on and we're still finding new things to do, and still deeply in love with all the old things, in this sparkling match-three dungeon crawler.


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## REVIEWED THIS ISSUE




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# Cutting corners

Developers often crow about their AI, but the reality rarely matches up to such lofty promises. The problem is particularly conspicuous in driving games, where the behaviour of your on-track adversaries can affect your experience of almost everything else, including track design and car handling.

This month, two high-profile racing games continue this frustrating trend. Playground Games' *Forza Horizon 2* (p112) uses the Drivatar tech developed for Turn 10's *Forza 5*, which was specifically designed to improve racing opponents by infusing them with the characteristics of your Xbox Live friends. Having their names above each car is motivating, but whether it improves the pack is debatable. Drivatars in *Horizon 2* are aggressive, and whichever algorithms sit behind their decisions can't generate good company for an open world.

*DriveClub* (p110) also makes some bold claims for its AI, promising adaptive racing tactics and braking strategies depending on pressure from other cars. This manifests itself as constant shunting and suicidally aggressive blocking manoeuvres.





But progress is being made in AI. In *Alien: Isolation* (p102) it's your self-preservation that's in the spotlight as you're hunted by The Creative Assembly's astonishing interpretation of Giger's monster. It learns from your actions, it even tries to outsmart you, and most brilliantly of all, it reinstates the mystery and terror of a creature that has been undermined by countless action-focused games over the years.

Of course, *Isolation*'s illusion is helped a great deal by its infrequent appearances and the fact that you'll spend most of your time hiding from it, but if driving-game opponents were even half as convincingly self-aware as The Creative Assembly's creature, sharing a track with virtual drivers would be a considerably more engaging experience.

# Alien: Isolation

**Publisher** Sega
**Developer** The Creative Assembly
**Format** 360, PC, PS3, PS4 (version tested), Xbox One
**Release** Out now

*Alien: Isolation* begins where the 1979 film ended, with Ellen Ripley's chilling ship's log entry. It's a perfect jumping-off point for a game that casts you as Amanda Ripley and asks you to investigate your mother's disappearance, but it also serves to highlight the gulf that still exists between film and videogames. Sigourney Weaver's short performance – re-recorded for the game – is nuanced, poignant and loaded. It's a powerful moment that's immediately undermined by the game's first cutscene, which flatly introduces us to engineer Amanda and fellow Weyland-Yutani employee Samuels, the latter bringing news of the discovery of the Nostromo's flight recorder.

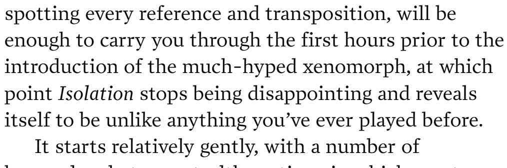
The vocal performances aren't terrible for the most part, but what little depth the actors salvage from the script is undercut by The Creative Assembly's bespoke engine, which, despite being exceptional in every other respect, renders humans as dead-eyed manikins with lockjaw. Characters are at least extremely sweaty, but otherwise they struggle to resemble the movie's stars. And while Samuels and Ripley's lines improve – even if they don't feel like they truly belong to this universe – Taylor, Weyland-Yutani's legal representative for the mission, is an inexplicably poor addition to the cast, and wouldn't be out of place in a middling JRPG.

This inauspicious start is further marred by niggling little mechanical hiccups that really should have been relegated to the past by now. Kill a human in your first stealth encounter, for example, and you'll be able to take their revolver ammo but not the gun that lies next to them; *your* revolver is waiting for you in an office a little farther ahead. And much later on in the game, you'll need to activate a cleaning droid in order to make use of its transport hatch to get around a locked gate. The solution to the puzzle is obvious, but for some reason you can't interact with the bot until you've practically pressed your nose against the obstruction first – a counterintuitive action, given that the people who locked that gate in the first place are currently on the other side, emptying their clips at you.

But while these and a few other problems, not least the insufficient explanation of the game's various systems, make for a bumpy on-ramp, you'll soon find yourself ignoring each tiny letdown just to drink in the astonishing atmosphere of *Isolation*'s central locale. A lot has been made of the team's access to the original production material for the film, and its attention to detail manifests itself everywhere, right down to the spidery pipe routing and padded leather panels that line the Sevastopol space station's corridors. It's there in the flickering CRT displays and bulky hardware, and in the bobbing office toys and loud expulsions of steam from previously unnoticed valves. There have been plenty of Alien games prior to *Isolation*, but this is the first time you feel like you've stepped onto the set.

The alien has access to almost every part of the station that you do, and there are no easy AI shortcuts to exploit





That overwhelming sensation, and the joy of spotting every reference and transposition, will be enough to carry you through the first hours prior to the introduction of the much-hyped xenomorph, at which point *Isolation* stops being disappointing and reveals itself to be unlike anything you've ever played before.

It starts relatively gently, with a number of horrendously tense stealth sections in which you try to keep track of the creature's position while moving towards your objectives in teetering, uncertain steps. It might take ten minutes to get from one side of an area to another, and mistakes spell death with few exceptions. Before long, however, the alien has access to almost every part of the space station that you do, and there are no patrol routes to learn, no easy AI shortcuts to exploit: you are being hunted, and your survival now depends on instinctive decisions.

Thankfully, Creative Assembly's tech does a far better job of rendering the creature than it does its prey. The alien moves with terrifying purpose and will be upon you in seconds if you make too much noise. It can't be outrun, but if you can block off its path – by punching an emergency door override as you pass through it, for instance – or break line of sight, then there's a small chance you'll be able to hide in a locker or under a desk. But the game never panders to its players, instead delivering an uncompromising take on what it might be like to be trapped on a space station with a deadly foe. This means that sometimes you might open a door to find the creature, and a restart, waiting on the other side. Players expecting more traditional videogame empowerment may find such moments frustrating, but Creative Assembly's alien would feel compromised if you weren't so vulnerable.

**The ferocity of** the alien's attacks and the game's low tolerance for misjudgments are both magnified by the manual save system, which requires you to use emergency phone points around the station to shore up your progress. They're generously placed for the most part, but there are a few tough, lengthy sections in which failure will set you back a good chunk of play. Resorting to quick or auto saves would dilute the tension, but long gaps between save points can sap your willingness to experiment with the game's AI and the various tools at your disposal.

Setbacks do at least demonstrate how many different ways each scenario can play out. Along with the alien, you'll also encounter human enemies and Working Joes, the no-frills android types manufactured by Seegson Corporation, which owns Sevastopol. On Hard difficulty (which Creative Assembly recommends as the way the game should be played), a bullet or two is all it will take to end you, but if you can survive being fired on for long enough, the noise of the guns will bring the alien down ▶

**ABOVE** While the game's visual design is studiously retro, the effect is not of dated technology so much as a believable, utilitarian environment tailored for the needs of those who work within it.
**LEFT** The alien is an imposing figure as it stalks the corridors, and never loses its power to terrify. Turning your back on it is even more disquieting as you crawl towards an exit, hoping you aren't about to be skewered by its barbed tail



**BELOW** The wrench, formerly the possession of this unfortunate soul, acts as a weapon and also allows you to remove barricades from doors. The process makes a lot of noise, so it can't be used carelessly



**ABOVE** The combination of complex geometry, clever illumination and fantastic sound design makes every new corridor feel like a set of its own. The studio's own designs are perfectly in keeping with the film's aesthetic



upon your aggressors, providing a brief window in which to move safely as it completes its grisly work. Working Joes, meanwhile, don't interest the creature, and also have little concern for your need to stay quiet or move slowly. These three AI systems combine in fascinating ways, often chaotically, and allow Creative Assembly to deftly avoid the need to script encounters and scares, instead relying on its technology to generate organic moments of tension.

For all that you're vulnerable, you aren't completely helpless, either. By holding Circle, you can cobble together various devices from components found about the place, your bag of tricks expanding as you discover new blueprints. This array of kit is indispensable for your survival, and includes medikits, smoke bombs and noisemakers, all of which become more powerful as you pick up design documents for upgrades along the way. Throwing a noisemaker into a gang of people will have a similar effect to them firing on you, allowing you to use the alien's curiosity to your advantage. But the creature is not easily deterred, and won't just leave straight away, so using this tactic can also place you in more danger.

Still more terrifying is the creature's capacity to learn. Repeatedly throw flares to distract the alien and it will eventually lose interest in them, decide it's being toyed with and come looking for you. A weapon you find deeper into the game changes your relationship with the alien yet again, providing you with one last desperate chance to escape when spotted. But what feels like a favourable shift in power is quickly undermined when, as a result of its use, the drone learns to sneak up on you from behind rather than approach head on.

Along with weaponry, you also have a version of the motion tracker, its nerve-shredding pings emanating



**MOTION TRACKER**

*Isolation* allows you to use a PlayStation 4 Camera or Kinect to track your head movements and noise levels in the room. The latter is inconsistent, the alien not registering our claps as it passed, while at other times it would pounce on us for seemingly no reason at all. The head tracking works better, but doesn't feel as natural as it might have done due to the modicum of lag between your own movements and those onscreen, and the fact that you still have to hold L1 to peek. Still, physically leaning around cover to keep an eye on the creature just feet from you remains a rush, even if pressing a button somewhat undermines the immersive effect.

**Humans aside, *Isolation* is beautiful and full of design flourishes. Doors, for example, feature panels that shift inward once the main door has opened, tricking your brain into thinking something dangerous is moving nearby**

from the DualShock 4 speaker. Brilliantly, the noise it makes in-game will also alert nearby threats to your location, which can lead to some unpleasant demises if you happen to pull the device out at the wrong moment. You also have a Security Tuner, used to hack terminals and some locked doors through a variety of short minigames, such as matching glyphs, which can be intensely fraught when you can hear the alien prowling nearby. Other doors require wrenches or cutting tools to bypass, so finding the right gear will open up previously inaccessible areas of the station, and you'll regularly backtrack through its lightly bounded spaces.

Thanks to the game's meticulous design and lighting, you'll never tire of moving around Sevastopol. More important, though, is the alien itself: across our 20-plus hours of play, it didn't once behave incongruously or do anything to lessen its impact. The story fares less well, overreaching itself when what feels like the climax is followed by a several more hours of running about, during which the studio comes perilously close to letting Cameron's influence drown out Scott's.

Even this can't ruin the brilliance of the core systems or the exquisitely orchestrated atmosphere in a game possessing some of the most terrifying sequences we've ever encountered. Unlike the creature at its centre, *Isolation* isn't structurally perfect, but it is brilliantly hostile in a way that's likely to shock many players. Here, Creative Assembly has crafted a survival experience that feels as fresh as it does familiar, and raised expectations for what a horror game can achieve. If only it had the script to match.

**8**






# Post Script

## Al Hope, creative lead, console team, The Creative Assembly

Fine art graduate **Al Hope** has spent the past 18 years making games at The Creative Assembly. When he joined in '96, he was the eighth employee of a company that has grown to around 300 staff and become famous for its *Total War* PC series. As creative lead for the studio's more recently founded console team, Hope guided the development of *Alien: Isolation*.



**What was it like having access to the film archives?**
It was really special to get our hands on that material. When we started, we thought we'd just have the movie to base everything on, and to be given access to kind of the full production archive was unbelievable. [20th Century Fox] did an amazing job of archiving the material back from the '70s. It gave us new insight into how that world was originally created, everything from blueprints of the set design to close-up prop photographs and even continuity Polaroids of the cast. [Plus, we had] lots of photographs of the set from angles that you just don't get to see in the movie. I was also fortunate enough to visit the archive, which is deep underground underneath Fox Studios, and sift through cardboard boxes of original Ron Cobb artwork as well, which was just... Well, that was a very special day.

**The game's sense of place is unrivalled, especially the way every corridor seems to light up differently.**
We've got some really talented guys, and we brought people in from the film industry and postproduction to help us light it. And I guess we had amazing inspiration from the movie again, which is just beautiful to look at. It was a great benchmark for us. That was one of the reasons we decided to create our own engine. We knew what we wanted to create, and building an engine specifically to allow us to light the world so beautifully was really important to us.

**The alien is impeccable throughout, but leaving so much up to AI processes must have been tough.**
In order to create the experience we wanted, to really make you feel like you were encountering Ridley Scott's original alien for the first time, we realised we couldn't choreograph every single moment of the game and it would have to be running under its own senses. And that was the real challenge. It's taken a multidisciplinary team a long time – almost the length of the project — to just build and refine and iterate that creature. I think we're really happy with where we got to.

**Has the alien ever done anything that surprised you during development?**
The thing that we find most surprising is the fact that we can play it now and, for me especially, my heart will be pumping away, and I have to play it just the same as anyone else. I have to concentrate moment to moment on how best to survive and what my next move is. I think that's amazing. Like I said, we've been working on it for a long time – we played the game every day – and it's still really effective for us. We'll jump and yelp, you know? We get caught out and we should be able to ninja our way through!

"We couldn't make the alien easy to simply grease paths, because that would destroy the atmosphere and credibility"



**The game is uncompromising, even on Easy. Are you worried some players will find it overwhelming?**
I think there's an audience out there who'll really appreciate a challenging game and that's in there for them. But I also think that, with the levels of difficulty, you can find a sweet spot for where your [preferred] challenge sits. At the same time, we were never going to make this 'easy easy', because I think that would really undermine what we were trying to achieve in the first place. We couldn't make the alien easy to simply grease paths, because that would just destroy the atmosphere and credibility.

**The game is hands-off when it comes to explaining its various systems, though. Was that deliberate?**
We wanted something that felt really instinctive, like you were having to use your wits moment to moment. We want you to feel underpowered and underprepared – there's no magic minimap, there's no radar. The motion tracker is about as close as it gets to that, and it's a really imperfect device that only gives a certain amount of information. We don't put anything in the world, holograms or whatever, that alert you to people's senses. You have to look, listen and respond in quite a real-world way, I suppose, and that felt right. We absolutely experimented with all sorts of different options, but we just kept coming back to where we ended up because it felt like the most intuitive way of doing things. That extends everywhere, including the controls – like the fact that when you want to duck under a table you don't have a button press to get under a table, you just push.

**Playing *Isolation* underlined for us just how much inspiration *Dead Space* took from the Alien films.**
Yeah. I mean, you can see the film's influence everywhere. I often say that my favourite Alien game was *Super Metroid*, because I think it was heavily influenced by the film. But I think that was the fun thing for us, because we were the first people to go, 'Wow, we've got the licence to actually run with this. We're not ripping it off or just being super inspired by it — we really can go deep and push it.' That was really exciting, and actually a big deal for us. ■

# Destiny

*Destiny* is amazing. We've been back and forth on this, but we're finally convinced, and it's all thanks to Peter Dinklage. He voices Ghost, your AI companion, whose interminable scanning of cosmic artefacts forms the spine of some desperately one-note mission design and who extols his amazement at each discovery with all the thrill and wonder of a man reading aloud the instructions for assembling a flat-pack bookcase. You can only hear something so many times before it starts to sink in.

It's not the script that has forever burned his bland delivery into our cortex, however. It's the structure. The campaign, flat and unimaginative as it is – a near-unbroken procession of bases attacked then defended, Ghost wittering away as you fend off yet another wave of aggressors – is over in a relative flash. After ten hours of piffle about darkness and light and goblins and witches, *Destiny* changes from a class-based, kill-and-level FPS into a long, complex loot grind.

Yet while this brings welcome relief from a deeply tedious narrative whole, you can never quite escape its component parts. You replay missions over and over again on higher difficulty levels, layering on modifiers that affect enemy behaviour and stats, or limit ammo drops. You flit freely between planets, but Dinklage is almost always there, his blandly professed amazement becoming harder and harder to swallow. Perhaps his motivation suffered because he knew that even an Oscar-worthy performance would lose its lustre after so many replays. Modifiers may change the flow of battle, but reaching *Destiny*'s real endgame means fighting the same enemies, in the same places, incessantly.

It's a problem that reaches its nadir in Patrol, a free-roaming mode with bite-sized ad-hoc missions made for when you want a break from the old routine. Instead, you spawn in the exact same place every time, your urge to explore stymied by invisible walls. It is the only mission type in which you are forbidden to change the difficulty level, making every encounter a cakewalk. And worst of all, the enemies spawn in the same patterns and locations indefinitely. When *Halo* designer Jaime Griesemer spoke of giving players 30 seconds of fun, over and over again for a whole game, he surely didn't mean it so literally.

It's unavoidable, too, since Patrol quickly becomes a fixture on your nightly to-do list as you hunt for the wearying amounts of planet-specific materials you'll need to upgrade late-game gear. Once you hit the soft level cap of 20, the only way to raise your rank is by either finding or buying, and then upgrading, better armour to increase the suddenly introduced Light stat. The pace falls off a cliff, the reliable levelling of the early game replaced with an unpredictable progression curve where luck and endurance are more valuable than skill. Instead of feeding into a single levelling system,

**Publisher** Activision
**Developer** Bungie
**Format** 360, PS3, PS4 (version tested), Xbox One
**Release** Out now

When Jaime Griesemer spoke of 30 seconds of fun, over and over, he surely didn't mean it so literally



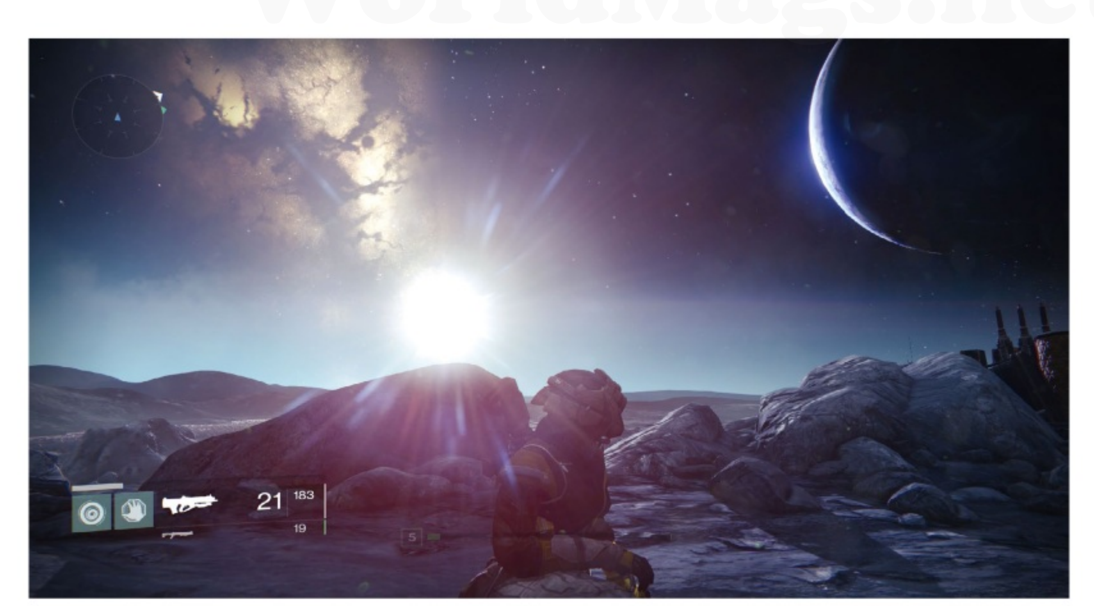
PVE and PVP modes power separate reputation bars, your glacial progress through each unlocking new gear for purchase that must be bought with mode-specific currencies. You can join one of three factions, where both PVE and PVP earnings feed into another rep bar, though you'll need the PVP currency to buy anything. In your darker moments, you will question whether humanity is really worth saving when it surrounds the war effort with this much red tape.

When you finally, thanks to a vendor or dumb luck, sport a full set of legendary gear, your focus shifts to the upgrade trees. As well as each planet's bespoke materials, you'll need Ascendant Energy and Shards, a few of which are found out in the world, some given out as rewards, and most from dismantling legendary gear. You'll want a large stock of Weapon Parts, as well as class-specific materials earned from destroying weapons and armour. And you'll require a steady flow of XP with which to unlock upgrades for purchase.

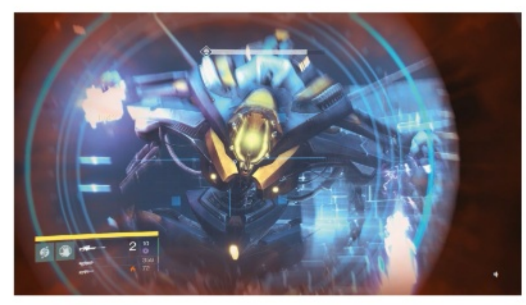
**Thankfully, other upgrades** are easier to come by. Perk-like buffs can be unlocked with Glimmer, the basic currency dropped by every enemy in the game and the one resource of which you'll always have more than you need. A piece of armour might offer reduced grenade cooldown for melee kills; one late-game helm blinds enemies that get too close. A weapon can be upgraded to increase headshot damage after body shots, or reload in a fraction of the usual time when you score a kill with a clip's final bullet. They're designed for the endgame, no doubt – even when you hit the Light cap of 30, you still hunt for gear better tailored to your playstyle – but they're a vital component throughout, making *Destiny* more than just a numbers game.

They're also vital in the Crucible PVP mode, in which Bungie seemingly abandons balance as a concept and takes the line that no one thing can be broken if every single thing is. Base weapon and armour stats are flattened, but their upgrades aren't; having double damage in the second half of a clip would be ruinous in any other game, but here it is simply in keeping with the spirit of the thing. This is a mode where turrets overlook capture points, a fusion rifle round will pass straight through the teammate in front of you and kill you as well, and where an enemy's full Super bar means you, and any nearby teammates, are dead the second they squeeze both shoulder buttons. The only thing stopping it from being awful is the fact that you can do all of those things as well. There's a fine time to be had so long as you're prepared to accept that each match is going to involve a handful of utterly unavoidable deaths.

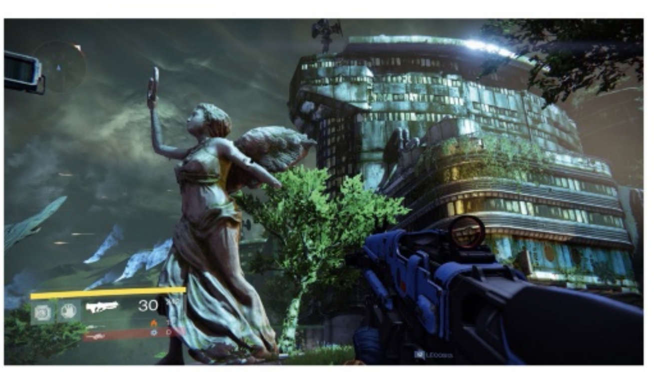
As ever, your chance of victory in the Crucible will increase if you're working together as a team. Partying up with those you meet out in the world involves a needlessly clunky series of button presses and ▶




**LEFT** No one does skyboxes quite like Bungie, and you'll often feel drawn to the Share button during your first hours on *Destiny*'s planets. A *TLOU:R*-style photo mode would be the icing on the cake. **BELOW** Towering architecture does a fine job of making you feel small. Sadly, few buildings can actually be entered; some let you in to a small room on the ground floor to hunt for crates, but most are closed off



**ABOVE** Strike missions conclude with battles against bosses with enormous health bars and waves of spawning helpers. You'll replay these more than any other mission type; on higher difficulties the rewards are well worth it






The Sparrow speeder bike proves invaluable as you flit between objectives when out on Patrol; planets may not be as explorable as they appear, but they're still too expansive to cover on foot

dashboard overlays. Your only means of in-game communication is four gestures – wave, point, dance or sit down. The Tower, pitched as the place to meet up with like-minded lonely hearts who like long walks on Mars, is as good as pointless as a social hub, instead a rest stop between missions that sees you sprint around vendors placed hundreds of yards apart while ignoring everyone. If *Destiny* is an MMOG, it's a lonely one.

**All this is** a recipe for disaster. We should have walked away hours ago, should be damning one of the most talented studios for making such a boring early game, a ponderously slow late game and an imbalanced PVP mode, and then wrapping it all up in poor social features. Instead, you will have to take our legendary Pulse Rifle from our cold, dead hands. In theory, *Destiny* is terrible. In practice, it is a delight.

Much of that comes from the mechanics, which remind you just why Bungie has the pedigree it has. Every enemy in the game is different to fight, and fun with it, whether you're weaving in and out of cover after a cowardly Dreg, chasing down a Wizard that's backing off after you've destroyed its shield, or cursing your backwards walk speed as you unload clip after clip into a rapidly advancing Minotaur. Even the bosses, one-hit-killing bullet sponges that they are, have their own charm, the battles more enjoyable with each replay. And don't get us started on the raid. Vault Of Glass, available when you reach level 26, is like nothing else in the game, doubling the player count to six and requiring a level of teamwork that is quite unlike anything we have ever seen in a console shooter. There are elements here – defined roles, multistage bosses, environmental puzzles – that would have helped greatly earlier on. But



**DAILY GRIND**

Activision largely stood by while its rivals scrambled after the App Store gold rush, but it, and Bungie, have clearly been paying attention: *Destiny* offers up daily and weekly challenges that echo the structure of a mobile game. Each day a selection of missions offer up extra XP, dollops of currency and the odd Ascendant upgrade material, while the Nightfall Strike offers those of level 28 and above an XP boost to everything they do until the weekly Tuesday reset. PVE and PVP modes and events, some of which add new rep bars and vendors, come in and out of rotation. Executives fret constantly about the second-hand market, but this is the best incentive to keep the disc in the tray Activision has yet produced.

**The Tower sits near the Traveler, the planet-sized enigma that protects Earth from attack and gives Guardians their powers. Teams that have completed the raid often pose for photos here sporting their new gear**

in the thick of battle, with your shield long gone and ordnance raining around you, your downed teammates urging you to keep your cool, it's hard to care.

Not making you care is what *Destiny* does best. Even in the worst sessions, where four hours have been traded for a pile of Relic Iron, an upgrade on a gun we rarely use and some low-level gear we immediately destroyed, there is a tangible sense of progress. The benefit of wrapping the game in so convoluted a framework is that everything you do has a consequence, even if it's miniscule in the grand scheme of things. You are always working towards something, and it's always something worth having. It is incredibly hard to put down.

So Dinklage was right. *Destiny* is amazing. It's amazing that one of the most respected studios in the world, with enormous amounts of money and time, could have made a game with so many needless issues. It's amazing that a studio under contract to Activision Blizzard, the company that defined the MMOG with *World Of Warcraft* and the loot grind with *Diablo*, could have made a game that so often misunderstands both. Yet what is most amazing of all is that despite its litany of weird little problems, *Destiny* is fantastic, its combat up there with the very best, the thrilling rhythm of its battles still not fading the 30th time through, and it has no single systemic problem that is not fixable. This, as Activision is so fond of reminding us, is a decade-long project. For all the problems with the game's story, its structure and its pace, Bungie has nailed the mechanics at the first pass. The next nine years are going to be very intriguing indeed.

**8**

# DriveClub

*DriveClub*'s beauty is fatiguing. Evolution's PS4 racer looks remarkable, a subdued colour palette and dynamic lighting conspiring to create an occasionally photoreal backdrop for the game's achingly pretty car models. But given the fanatical attention to detail on show – this, lest we forget, is a game in which carbon-fibre weaves have been accurately modelled for each car – you'd think that the talented team behind it could have found time to model a sun visor. We wouldn't even have minded if a generic one had been used across every car – it would have been a small price to pay for less time spent squinting into the track-obscuring glare of *DriveClub*'s blinding sun.

The problems caused by such uncompromising environmental realism lessen as you begin to learn the tracks, and it's clear that Evolution has designed these moments to increase the challenge in some of the events that make up its modestly sized singleplayer campaign. But not being able to see where you're going for any amount of time is disconcerting in a game that delivers such a thoroughly convincing sense of speed.

Evolution's decision to cap the refresh rate at 30fps has prompted no little scepticism, but it's had no ill effect. Trackside furniture whips past at terrifying speed once you're racing hypercars, and even less-powerful vehicles feel quick. It's all helped along by a handling model that pushes towards the sim end of the scale and favours clean lines over showboating excess.

But for players expecting something more light-hearted, the opening hours may be a disappointment. Cars stick unfashionably to the road around corners, understeer and the squeal of protesting tyres the only evidence you're pushing the vehicle further than you should. But any perceived sterility masks a nuanced, consistent handling model that reveals itself gradually as you test its limits. That understeer can be corrected with a little lift-off oversteer to bring your line closer to the apex, for example, while a sudden change in camber can throw your poise into disarray on a fast straight.

**If only your** opponents were so well judged. While *DriveClub* opts for subtle realism in almost every other aspect, the virtual drivers you find yourself racing with are more blunt, absentmindedly ramming into you as you attempt to brake for corners and paying little heed to your position on track at any other time. This antagonistic competitiveness is directed towards other AI drivers, too, resulting is some spectacular-looking overtaking and accidents. But the crunching impacts are wearing when you're trying manage weight transfer through a tricky corner. Make a mistake, or be forced into one, and you'll likely see the whole field sail past you thanks to some conspicuous rubber-banding.

These issues are compounded by *DriveClub*'s readiness to penalise you for every transgression of its frustratingly inconsistent rules, whether you're to blame or not. Everything you do earns fame, a currency that allows you to level up and earn new cars, but you'll be fined for impacts and off-track excursions, and incur temporary speed restrictions for even slightly cutting corners. Well, some corners, because the boundaries seem to have been placed at the whim of whoever built each track. An overbearing track reset, meanwhile, begins a three-second countdown the instant you put a wheel wrong. It feels especially patronising in the context of the game's challenging handling model.

But as grating as all of this is, it's quickly forgotten once you have the road to yourself. Driving well in *DriveClub* is as rewarding as it is involved, requiring you to pay close attention to the road surface and your car's attitude as you negotiate each roadway. When you do break traction, it feels, crucially, earned – there's no separate physics model for drift events here. Evolution has even replicated the way manumatic gearboxes prevent potentially damaging bad selections, meaning that, for once, spamming downshifts to unrealistically bleed off speed into a corner simply isn't an option.

The combined result is one of the most finely balanced time-trial simulations yet. The game's road-based tracks might meander without much incident, but its fictional circuits are excellent. Each of the five race tracks features three variants, and while there's nothing here to rival the likes of *Gran Turismo*'s Trial Mountain or *Forza*'s Maple Valley, we lost a few hours looping the particularly moreish Scottish raceway in a BAC Mono.

It's this that drives the asynchronous multiplayer, too. The much-vaunted club system is underwhelming, lacking any real sense of collaboration beyond an ascending club fame meter, but taking on friends in Challenges and Face-Offs proves considerably more successful. The latter of these take the shape of average speed, drift and cornering measurements, which take place during most events and reward the best driver with fame bonuses. Challenges, meanwhile, are more in-depth, allowing you to send particularly good lap times – or even entire races – to friends and other clubs to try to beat. And the aggressive AI is slightly less objectionable when you're trying to best a friend's race performance, since you know they also had to fight their way through the pack.

For all its successes, the fact remains that even after significant delays, what's been delivered is far from finished. And of even greater concern is the jarring disparity between Evolution's careful recreation of real-world conditions and driving physics, and the outdated opponent AI that clogs up its roads. But despite these disappointments, there still remains a great deal of driving pleasure to be extracted from *DriveClub*'s social aspects and excellent handling – especially given that ghost opponents can't dent your car.

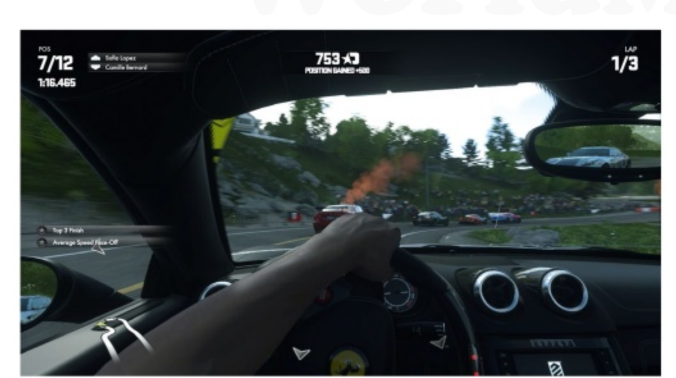
**7**

**Publisher** SCE
**Developer** Evolution Studios
**Format** PS4
**Release** Out now

Driving well in DriveClub is as rewarding as it is involved, requiring you to pay close attention to the road surface



**WEATHER FORECAST**
While we've played a build of the game that includes dynamic weather, the feature somehow hasn't made it into the game for launch. It's a great pity, since it not only dials up *DriveClub*'s already not-insubstantial visual appeal, but adds some variety to the conditions you'll find yourself driving in. It will be patched in shortly after launch, we're told, but Evolution's spin – that this gives players the chance to learn tracks in the dry first – rings hollow. Another missing aspect is replays, which will be added in time, but are essential for showing off your custom club liveries.







**ABOVE** *DriveClub*'s open-road tracks feature plenty of breathtaking views, but feature few memorable corners or sections. The game's circuits fare much better, however, as do some of the closed loops set on roadways







**TOP** Server problems delayed the release of the free version of the game, and prevented people from playing online over the launch window, stripping the game of many of its unique features. **ABOVE** *DriveClub*'s audio is peerless, changing tone as you switch between views or rotate the camera. Nothing is a stock recording, and in some cases Evolution's are the highest-definition samples in existence. **RIGHT** Car interiors are exquisite, and easy to appreciate thanks to a dampened look movement that doesn't ping about or let you lose sight of the road, while a clean UI ensures the screen is uncluttered

# Forza Horizon 2

Given the destruction wreaked on Colorado during the first *Forza Horizon*, you'd think the French and Italian authorities charged with authorising the festival's visit to the south-west of Europe might have reconsidered. Mere days into this latest motorsport gathering, olive fields lie in ruins, parked scooters and restaurant furniture are scattered across the streets, and local drivers can't venture out for fear of losing their no-claims bonuses. But while our blaring presence in this bucolic idyll is doing little for the reputation of Brits abroad, it's hard to feel much guilt when we're having this much fun.

And in a genre so enamoured of American tarmac and overt spectacle, *Horizon 2*'s setting is particularly appealing. The sinuous European roads here aren't as broad as the American highways that crisscrossed the first game, but are characterised instead by soft verges, challenging camber transitions and all manner of elevation changes. The world feels more organic as a result, and its roadways more intricate as they wind through the gently rolling landscape connecting the small, characterful towns that occasionally interrupt the countryside. *Horizon 2*'s compact take on this part of the world is certainly capable of delivering incredible views, but does so without falling back on red-rock canyons, neon lighting (at least outside of the festival enclosure) or vast, towering forests.

Don't expect any such subtlety when it comes to the brash Horizon Festival's race schedule, however. The first game's list of event types is retained, including circuit races, point-to-point sprints and dirt-track-based rallies. Here, they're just as boisterous as before, further improved by a network of roads that demands more of you as a driver, and Playground's circuit designs are exemplary, always making the most of *Horizon 2*'s Mediterranean setting. Tarmac sections are marred slightly by *Horizon 2*'s unfortunate inheritance of *Forza Motorsport 5*'s excessively slippery handling, which sees even four-wheel-drive vehicles break traction around slow corners, but the game's handling model suddenly makes sense once you venture off road.

This is made possible thanks to Playground's decision to remove *Horizon*'s roadside barriers and offer a truly open world. Now if you can see a location, you can drive there, inflicting culturally insensitive damage as you go. And this newfound freedom has allowed the studio to introduce its most exciting event type yet: Cross Country. In these races, you hare through wide-open fields, down densely wooded hillsides and across people's gardens – don't worry about the fences; they're destructible – as you wrestle to keep your vehicle pointing vaguely in the right direction amid clouds of dust and constant controller rumble. It's a bit odd being asked to drive a Pagani Huayra on anything other than tarmac, but stick to the 4x4s and rally vehicles and *Horizon 2* shines. These events are so good, in fact, that you'll be disappointed when you use them up and have to revert to road racing to fulfil the quota of 15 championship wins to enter *Horizon 2*'s Finale.

**Publisher** Microsoft
**Developer** Playground Games, Turn 10 Studios, Sumo Digital (360)
**Format** 360, Xbox One (version tested)
**Release** Out now

Cross Country events are so good that you'll be disappointed when you use them up and have to revert to road racing











Championships revolve around a mobile hub that changes location throughout the festival, with four events to complete in any order. Once you're done, a noncompetitive road trip to the next location becomes available, allowing you to choose the discipline of the next championship from a selection that includes super cars, hot hatches, track toys and off-road vehicles, then buy a suitable vehicle. And sometimes championships are brought to a close by returning showcase events that, as in the first game, channel Top Gear as they pit you against planes, trains and, well, balloons.

**There's no rush** to progress, however, and there are plenty of distractions beyond the main story. Breakable boards are dotted around the map that offer either additional XP or discounts on fast travel, Barn Finds have you searching for rusting classics and restoring them, and leaderboard-driven Speed Traps are brought over from *Horizon* as well. But the sequel also finds time to introduce Bucket List challenges, which lend you the keys to some of game's most exotic hardware and task you with reaching a destination within a certain time or, for example, scoring 15 near misses in oncoming traffic. They're amusing, and you're chirpily told that you can retry them any time you like, but the latter variety will frustratingly end when you hit the required target, even if there's lots of time on the clock.

There are some other design niggles, such as the fact that the world map, which you'll spend a great deal of time using, requires two button presses to both access and return to driving. A far bigger problem is the introduction of Turn 10's AI Drivatars. Emulations of your friends and other players, Drivatars serve to make offline events feel more personal and generate emergent midfield rivalries that can keep things engaging even if you're not at the front end of the grid. But out in the open world, they're bolshie, oblivious to other drivers, and fond of denting your car even if you're out for a gentle cruise. They create an accurate simulation of going online with strangers, then, but they're a scourge on *Horizon 2*'s often entertaining world.

It's a shame that *Forza*'s much-vaunted AI tech proves an ill fit for open-world racing, but even all the constant shunting can't break Playground's characterful, confident blend of driving, exploration and festival atmosphere. That vibe feels as fresh on Xbox One as it did in the original on 360. By removing the barriers that hemmed in the first game's drivers, the *Horizon* series has better realised the intoxicating potential hinted at in its title, even if the inconsistency of its parts occasionally threatens to spoil the trip.

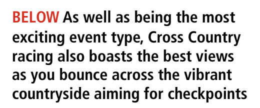
**7**







**ABOVE** When you manage to find a stretch of tarmac unblighted by Drivatars, the sense of being out on public roads in a powerful vehicle is excellent. Sunday drivers beware. **LEFT** *Forza Horizon 2*'s selection of cars includes plenty of appealing classics, but we'd hate to see the repair bill after racing an F355 Berlinetta over loose gravel



**BELOW** As well as being the most exciting event type, Cross Country racing also boasts the best views as you bounce across the vibrant countryside aiming for checkpoints




**ABOVE** Car meets allow you to show off your car and custom liveries, as well as check out the efforts of other drivers. And if you like a paint job or vehicle that you see, you're given the option to buy it there and then



# The Vanishing Of Ethan Carter

**Publisher/developer** The Astronauts
**Format** PC (version tested), PS4
**Release** Out now (PC), 2015 (PS4)

The Astronauts' handsome debut begins with an attention-grabbing contrivance that's cheap, but undeniably effective. As you take your first steps through peaceful, picturesque woodland, you'll hear a loud wooden creak and thump as you trigger a spiked trap. Soon after, you'll almost blunder into another, and another. The metaphor may be a little on the nose – danger lies beneath this seemingly tranquil surface – but it serves as a reminder to be watchful, and also to unsettle you for the rest of the game.

There's another message here: tread carefully, and take your time. Despite the presence of a run button, Red Creek Valley is a setting to be lingered over, its sumptuous environments rich in detail and atmosphere, lit by a permanent, hazy, low-hanging sun. You'll stride across an old railway bridge and then gaze out in both directions, looking up at the craggy hills, then peering down onto a beautiful calm lake next to a formidable dam, your finger hovering over F12, Steam's screenshot shortcut, all the while.

It's at once real and unreal, evoking a powerful sense of place. Neglected and vacated, this is a world haunted by the spectres of its former inhabitants, a world of cracked paint, weather-beaten masonry, dust and rust. Stony, leaf-ridden paths wind their way past a church on a hill that would look imposing if it wasn't so pitiful, while a nearby cemetery is more sorrowful than scary. As extraordinary as the texture detail is, this is no mere technical showcase; instead, each meticulously crafted inch of scenery helps to tell a story, adding background colour to the game's central mystery.

The noir-tinged voiceover of Paul Prospero sets the tone as he looks into the disappearance of the titular youngster. Prospero is a supernatural investigator in every sense – not only because the paranormal is his speciality, or because he uses occult powers to dip into the past, but also in the way he effortlessly glides over the ground (though even he is occasionally thwarted by the odd invisible wall). Regardless, as in any good mystery, he soon discovers he's in for more than he bargained for, stumbling across a pair of bloody severed legs and then, shortly afterward, their former owner.

It's the first of a series of vignettes that you must piece together by examining key items in the vicinity, highlighted by text overlays, until you find something missing from the scene. This prompts a swirl of words as Prospero guesses the nature of the absent item; you'll need to move around until the noise quietens and the words merge. One button press or mouse click later, and you're not only shown roughly where to go, but given a glimpse of the object's precise location. A pre-game message proudly states *The Vanishing Of Ethan Carter* isn't going to hold your hand, and that may be true, but it's sometimes happy to grab your shoulders, spin you around and point you in the right direction.

For all the visual memories stored away in your screenshot folder, it's what lies beneath that will stay with you



Once everything has been returned to its original position, you're left to recreate the chronology of the associated incident. Nearby you'll find several images, which you're invited to arrange into the correct order by assigning each a number. Although solving the puzzle is an enjoyable process in and of itself, it's an idea that quite never stops feeling discordant. With most of the real deduction done for you by Prospero, it's not so much about solving a mystery as having to complete a trial-and-error puzzle before you can enjoy the next chapter of the story. It could barely be more jarring if accompanied by a flashing sign bearing the legend, "Here comes the game part."

**Much more successful** are the small discoveries elsewhere that take you further into Ethan Carter's dysfunctional world and that of his increasingly troubled family. There's a puzzle that will have most players scrabbling to find a notebook and pen, and a bravura early-game fantasy sequence that at first seems entirely inappropriate, but makes sense in light of later revelations – and, besides, it's an absolute joy. These vivid sparks of imagination illuminate a game that could otherwise have been a little too unrelentingly grim, its narrative spiralling towards something truly sinister; it's a dark and unpleasant (albeit superbly written) tale with a strong, haunting Lovecraftian flavour. It's all supported by an expertly judged non-diegetic soundtrack, a significant presence, but one that's suggestive rather than intrusive, and knows when to fade into the background and let the sounds of nature take over, making rare silences all the more unnerving.

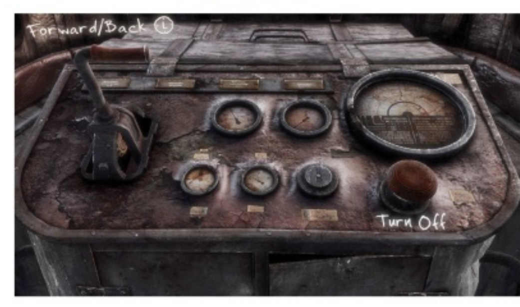
And if most of the detective work is done by Prospero on your behalf, the rest of the mystery is yours to unpick as you see fit. The devil, as ever, is buried in those finer details, and while the ending seems open to interpretation, one reading explains away so many apparent incongruities as to feel all but definitive. There is, however, a notable misstep in the closing stretch – a roadblock just ahead of the finish that demands you backtrack to find anything significant you might have missed. Red Creek Valley might not be the largest sandbox you've ever seen, but it's quite a trek from one end to the other; time, at last, for Prospero to break into a sprint.

Regardless, this is a classy, inventive adventure with an absorbing story. Come for the textures, stay for the subtext: *The Vanishing Of Ethan Carter*'s picture-postcard views make Red Creek Valley an appealing place to explore, but for all the visual memories stored away in your screenshot folder, it's what lies beneath that will stay with you. By turns melancholic and menacing, tender and raw, The Astronauts' debut is a powerfully evocative journey that just so happens to take in extraordinary views along the way.

**8**



**LEFT** The attractive scenery is juxtaposed with grisly discoveries to potent effect. Red Creek Valley looks like a pleasant place, but it evokes a pervading sense of dread. **BELOW** When you've arranged the chronology of key incidents, Prospero will attempt to visualise them. If the order is incorrect, the flashback will end abruptly and you'll be invited to try again. **MAIN** You'll want a high-end PC to get the most out of the game, though it runs surprisingly well on mid-range rigs. There are three quality presets, and you can tweak variables such as vertical sync and texture filtering as well




**ABOVE** For all the talk of avoiding handholding, The Astronauts is evidently keen for its puzzles not to be too opaque. The accompanying floating handwriting makes it clear exactly what you can interact with and how





# Middle-earth: Shadow Of Mordor

**Publisher** Warner Bros
**Developer** Monolith Productions (PC, PS4, Xbox One), Behaviour Interactive (360, PS3)
**Format** 360, PC, PS3, PS4 (version tested), Xbox One
**Release** Out now (PC, PS4, Xbox One); November 18 (NA), 21 (EU)

You'd have to have passed out of all knowledge for 2,500 years – OK, seven – not to find Warner's Tolkien tie-in reminiscent of a certain Ubisoft franchise. Rugged ranger Talion is a wrist blade away from an acceptance letter to *Assassin's Creed*'s titular guild, bounding across rooftops and clambering up outcrops with all the ease of Ezio, Altaïr and the Kenways, if not their fluid animation. Despite this, Monolith's attempt to tap into the open-world stealth genre handles the business of assassination much better than any game with 'Assassin' in its title.

Atop the foundations of the familiar freerunning lies the Nemesis system. Across Mordor, the armies of Sauron are beginning to muster, personified by the orc leaders you'll find randomly dotted about the maps. A linear story threads around your overarching objectives, which in the first of the two areas is to take on five Warchiefs, a task that requires creative thinking.

Open the Sauron's Army menu screen and you'll see a web of interrelationships spread out. The minions of the Dark Lord don't always mix well, and you're able to exploit these quarrelsome connections to play havoc. Mugdûsh The Sneak, for example, may want to execute Bolg The Tiny in a bid for power or to keep his own followers in line. Talion can upset his plans by showing up at Bolg's beheading, and either stealthily set him free, or use the distraction to give Mugdûsh a thrashing.

In short, you become the fulcrum for Mordor's hierarchical manoeuvring, but you'll have to know your enemy to prevail. Orcs are only visible as silhouettes in your Sauron's Army web until you've been out into the world to gather intel by capturing and interrogating their comparatively fragile subordinates. Orc leaders, meanwhile, remain frozen in status and power until you taste bitter defeat and respawn. (As the unwilling beneficiary of a wraith curse, Talion is unable to die per se, instead finding himself regenerated at a nearby tower after the passing of time with each rout.) Your actions – or, in some cases, inaction – during each 'life' will cause cascading shifts in authority. If you leave a certain Uruk to carry on his recruitment, feasting or trial by ordeal events unchecked, he'll continue to ascend the ranks until you do something about it. The result is a palpable sense that you are at the centre of this world shaping events, and hearing enemies share stories of your deeds around a campfire is all the more satisfying for setting your own objectives.

**As powerful as** the Nemesis system is, the many options available when you clash with orc chiefs are what drive home the assassin fantasy. Suppose there's a powerful Warchief who has killed you multiple times in open combat. To face him head on again would just risk further death and likely buff him ahead of future encounters. You need to mix up your approach.

You become the fulcrum for Mordor's hierarchical manoeuvring, but you'll have to know your enemy to prevail



Stealth and intrigue should be your starting points, the latter entailing familiar instances of hiding in foliage, hanging from ledges and pressing up against walls to taunt nearby enemies before you slip a dagger into their ribs. It's invigorated, however, by the addition of inspired wraith abilities. Elf-arrow ranged attacks, for instance, allow you to instantly teleport to distant foes, lending a Marvel superhero sensibility to proceedings. With each named orc also boasting a selection of strengths and weaknesses, learned by clamping your palm onto the face of a minion, you can start to figure out how to hit them where it hurts. Next time you fight that Warchief, you'll know you're better off with fire attacks, avoiding ranged combat altogether or riding into battle atop one of Mordor's monstrous mounts, depending on what your target is invulnerable to or what he fears most. And while instigating power struggles between orcs can also chip away at the problem, in the latter half of the game Talion unlocks the capacity to brand and command foes, forcing them to incite riots, betray their leaders or murder their fellow officers. The choice of approach is yours.

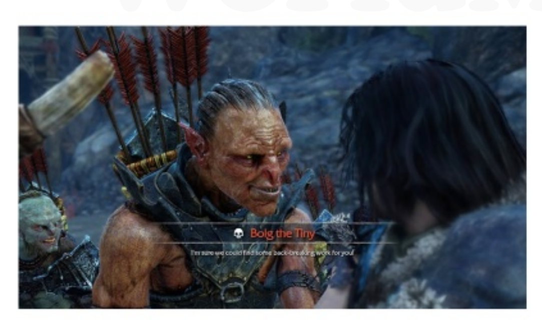
If it comes to drawing your sword, however, another influence becomes clear: the *Arkham* games. Talion's sword-swinging skills feel neither as smooth nor as flowing as the Dark Knight's moveset, while screen-filling hordes can make quick work of your health bar and obscure much of the action. The latter at least works in *Shadow*'s favour, ensuring its stealth isn't undermined by Talion being a combat juggernaut.

It's competent enough, but the lure remains the ability to inform your approach to the more difficult scenarios of the late game through imaginative play, rather than walking the line of mission flowcharts that usually leads you to your target in less open-ended stealth games. When you eventually best a Warchief, using knowledge you have gathered and assets you have cultivated, the sense of achievement is profound.

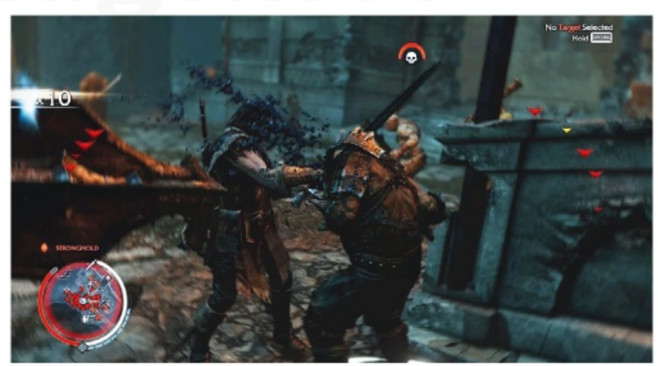
It's a shame, then, that the terrain you wander through as you do all this is so visually substandard. Textures are murky, and not just in a deliberately oppressive manner. Neither of the two maps has any particularly memorable locations that you'll take with you from the 20-hour story. Also, while the orcs themselves look fantastic, with the procedurally generated models capturing tiny little affectations (a collector of ears wears his hoard around his neck, for example), Talion and his fellow humans are as wooden as Gerry Anderson puppets.

But when you're blade deep into a darkly violent adventure of your own making, you'll be inclined to forgive these visual missteps. That goes double for fans of the source material who, after so many mediocre titles that have undercut the franchise at large, finally have a videogame worth fighting for.

**7**




ABOVE *Shadow*'s best innovations are unashamedly singleplayer in focus, but there is a *Diablo III*-like vengeance mission system should you play online – tackle the orc officers from friends' games for mutual rewards










TOP Rather than distract you with differing loadouts, you'll use the same weaponset of dagger, sword and bow throughout the game. ABOVE Once you've snuck up on an unsuspecting orc, you can choose to kill or brand him. Doing the latter will see him fight on your side. Branding archers can help when tackling fortified strongholds. LEFT Filling up Talion's combat meter allows him to unleash an array of devastating finishing moves, such as brutal neck-cleaving execution swipes and area-of-effect ground pounds

# Costume Quest 2

Publisher Midnight City
Developer Double Fine Productions
Format 360, PC (version tested), PS3, PS4, Wii U, Xbox One
Release Out now (PC), 31 October

*Costume Quest* was such an irresistible idea that, four years on, this follow-up is content to simply repeat it. And why not? Halloween is a great time for fertile imaginations to run riot, and both the original and sequel skilfully capture that nervy thrill of trick or treating. The portentous drum roll as twins Reynold and Wren knock on another door perfectly evokes those competing emotions of anticipation and trepidation, the costumed pair unsure if they'll be greeted by a kindly neighbour ready to bestow sweet gifts, or if behind the door lurks a heartless monster.

It's usually the latter, at which point you'll once again enter a delightful flight of fancy where the children become empowered by their outfits and are transformed into muscle-bound heroes, ectoplasmic spirits, mummified pharaohs or even Thomas Jefferson, whose Declaration Of Destruction offers a spectacular, if undiplomatic, final solution to encounters.

The turn-based combat has at least been gently refined. You can boost the impact of attacks by pressing buttons just as your blows land, though rather than the clumsy 'press X now' of the first game, you're asked to tap as a rapidly descending circle reaches a small marker. Timing is reasonably forgiving for Nice attacks, though Amazing ones are more exacting. They're much more rewarding, too, not only for the substantial damage boost, but because of the vibrant purple flash, large comic-book text and celebratory chime.

Counters are equally satisfying, introducing an element of risk to defending. While you can just tap a button at the point of impact to minimise injury, you can also opt to charge up a counterattack by holding the same button and releasing it as an enemy connects. The catch, however, is that you're never sure who's going to come under attack next, though occasionally an opponent's tell is long enough for you to adjust and block if you've guessed wrongly.

*Costume Quest*'s buff-conveying battle stamps have been replaced by collectible Creepy Treat Cards, of which three can be equipped at any time. Playing one uses up a hero's turn, and once deployed they can't be used again for two or three battles, encouraging you to switch them out between encounters. Yet while in theory they add an extra layer of strategy to the game's rudimentary combat mechanics, and occasionally offer a much-needed post-battle boost to health, experience or candy, the game is never challenging enough for them to feel essential. Similarly, while every costume is strong against particular enemy types and weak against others, so long as you're adept at matching button prompts, you'll probably never see the Game Over screen.

Fortunately, the battles here are entertaining in and of themselves. Much is down to the perky visual presentation and the cheerful invention in the costumes and the attacks that each of them enables. As Jefferson, you'll angrily thrust a flaming quill towards your rivals, while the clown costume's bounce attack serves up a wonderfully animated pratfall. As a white wizard, you'll jab your staff into the ground, a strangely moving echo of a kid freshly returned from seeing The Lord Of The Rings and pretending she's Gandalf. And then there are the silly sight gags and bad puns: a flying dinosaur's standard move is named 'Pter-attack-dyl', for instance.

The most versatile tool is the clown's horn, used to shoo pigeons, wake alligators, and even join a jazz band



The gags flow outside battle, too, with a pretty decent hit rate, though newcomers may experience a little early confusion at a plot that continues from where *Costume Quest* DLC *Grubbins On Ice* left off. Siblings Wren and Reynold quickly find themselves in a dystopian world where goose-stepping dentist Orel White has become a tyrannical overlord, banning all costumes and candy. What follows is a time-travelling plot that sees the twins visit the past and future, first exploring the misty bayou that will eventually become their home of Auburn Pines, and a cold, sterile future of hover cars and enforced education in dental hygiene.

**Yet whenever you** are, the structure remains broadly similar. When you're not going door to door collecting candy, you're taking clandestine deliveries to speakeasies. It's also a game that's more interested in exploring the narrative cause and effect of its temporal conceit than incorporating it into its mechanical design. The story may be ripe with potential for some *Chrono Trigger*-style conundrums, but each puzzle is simply a matter of finding the right costume ability to use in the appropriate place. A flap of your pterodactyl wings is enough to blow away a pile of leaves, while dressing as Jefferson means you'll be able to cajole the easily swayed into absconding from their duties or revealing the location of key items. The most versatile tool is the clown's horn, used to shoo obstructive pigeons, wake alligators, and even join a jazz band, delighting the audience with your experimental stylings in a short set-piece that's a literal hoot.

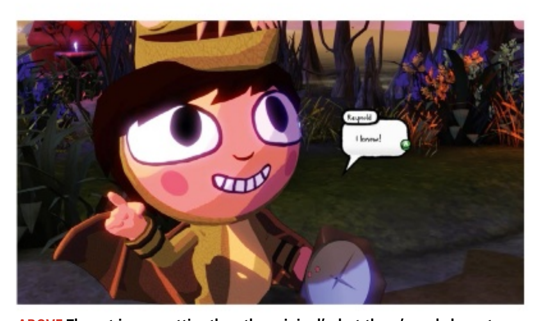
This interlude is *Costume Quest 2* in microcosm. With a handful of minor exceptions, it's a game that fails almost entirely at meaningfully developing any of the first game's ideas, yet at the same time is able to comfortably coast by on its undeniable charm. The lively pacing and contextual dialogue are enough to compensate for the repetition of its tasks; even as you hunt down your third group of six hidden children, you won't feel your time is being egregiously wasted.

You'll likely have seen everything within seven or eight hours, and most will be left satisfied, if not wanting more. A pall might settle over the formula if *Costume Quest 3* plays it similarly safe, but this offers the same high as the first: a syrupy confection whose taste you fondly remember, but that you haven't experienced for a little while. In short, it's sweet.

**7**




ABOVE You'll occasionally bump into patrolling enemies in the field. Whack them from behind with your bucket of sweets and you'll take a small chunk off their health bars before your first turn



ABOVE The art is no prettier than the original's, but there's real character in the animation and detail. We're particularly fond of the way Wren and Reynold stick their tongues out in intense concentration while rollerskating



ABOVE Shady the Grubbin can be found in dark corners of each area, touting his wares. Alongside his selection of Creepy Treat Cards, he offers cheap, hand-drawn maps and expensive costume upgrades. LEFT Most early foes will simply try to hit you on their turn, but later you'll come up against enemies that heal their allies, or add splash damage to attacks – not that the challenge increases accordingly

# Wasteland 2

*Wasteland 2* is many things. It's ample compensation for the fans who invested almost $3 million via Kickstarter to resurrect the series after its 1988 original. It's also a convincing argument for the relevance of a classic form of game born of early computational constraints. But misty-eyed backers might be disappointed by what it isn't: *Wasteland 2* is a bustling, if scruffy, RPG in its own right, but it's no new *Fallout*.

You assume command of a band of up to seven Desert Rangers, the last law in the wastes of a post-nuclear USA. It's a familiar setting, but considering *Wasteland*'s status as the elder statesman of irradiated roleplaying, it feels something like a coming of age. InXile knows the territory best, and this particular no man's land takes pains to distinguish itself.

Life abounds in *Wasteland 2*. The scenery transitions from scorched desert to LA swamp by way of gigantic mutant vegetable garden. In its clutter and set dressing, *Wasteland 2* is varied and exciting. Ruined highways are choked with vibrant debris, and the swamps of the later game are convincingly sticky. Zoom in too close, however, and your characters resemble an early Lara Croft; pull out too far, and the broad strokes of the wasteland are stretched and simplistic. This might have been a major grievance given InXile's intent to craft an RPG befitting modern systems, but it's clear that the effort has been expended elsewhere.

InXile estimates it will take 70 hours to reach the end of *Wasteland 2*, and that's a dense 70 hours of relentless, frenetic activity. The first mission to recover tech from a fallen comrade ramifies something fierce, sprouting a tangle of roots that feed the main story. Should you choose to pursue their snaking trails, you could find yourself embroiled in a turf war along a defunct railway, branching off further to expunge thieves from the tracks, or meddle in forbidden romance.

Yet you might as easily not. *Wasteland 2* does what few dare, closing off swathes of content in response to your choices and the passage of time. Choose: the dam under Raider assault or the farm that's being devoured from within. Choose: thirst or hunger. This early dilemma is a statement of intent, one on which InXile consistently delivers. The hectic setting, rife with nervous energy and unforeseen consequence, instils the sensation that there's not enough law to go around. The strain is intentional: the replay value here is immense, and the true impact of your actions on the world may only be grasped after several playthroughs.

These actions carry a strong sense of agency thanks to comprehensive character sheets. Six primary stats govern base attributes such as health, action points and speed, and support a wealth of specific abilities: animal whisperer, sniper rifles, toaster repair. Their diversity presents an exciting but short-lived dilemma. Exciting because the first points feel crucial, as if a squandered level could bring your initial team of four to its knees. The impact of these decisions is clearly communicated, too. Even the typically opaque Luck stat makes its presence felt, flamboyant popups announcing each lucky miss or critical fail. *Wasteland 2* triumphs at telegraphing its mathematical innards.

Towards the middle of the game, team size challenges this tried-and-tested formula. When your soldiers are stretched thin, there's gravity in the placement of each skill point. Muster the full seven troops and you're guaranteed a nondescript soldier for almost every occasion. What began as a struggle for survival, racked by thoughts of what could have been had your strategies been sharper, becomes a matter of cycling to the right tool. Outside of scripted choices, the absolute command you exert over your environment strips much of the character from your patchwork army.

**Combat is their** redemption. The menu-bound battles of yore have been translated into an engaging turn-based game of tactics with careful reference to *XCOM: Enemy Unknown*. Under fire, each party member plays their part, and you come to know your recruits by the weapons at their disposal. How you choose to array your team is just as important as their weapon types. Explosive foes will devastate the party that rushes in blind, and extra attention must be paid to riflemen, whose aim goes to pieces when enemies get close. Each encounter is a compelling scramble of planning and execution (or poor planning and recovery), which keeps even random attacks while travelling tolerable.

Though based on firm foundations, gunfights aren't without foibles. The cover system is implemented without enthusiasm. Tutorials stress the importance of the evasion and accuracy bonus that cover confers, but most battles aren't staged to make use of it. Improbable lines of sight – straight through walls, for example – apply minor statistical penalties. Indeed, the interface as a whole can be described as particular, with much mousing over objects to find interactive sweet spots.

*Wasteland 2* suffers for cut corners and rough edges, but the situation isn't so gloomy as a list of slip-ups suggests. They niggle rather than frustrate, and the astounding breadth of the missions is enough to distract from finicky systems and low-res textures. As such, this game is a strong successor to the original, although it never quite rises to the height of the series that followed. Indeed, the importance of *Fallout*'s 1950s kitsch to the appeal of a ruined future has never been so pronounced as in its absence. The wasteland itself is less characterful – more dark than dark humour. *Wasteland 2* has carried the standard for a computer RPG renaissance with utmost credibility, then, but it's hard to see it leaving a legacy of its own.

**7**

**Publisher/developer** InXile Entertainment
**Format** PC
**Release** Out now

Wasteland 2 does what few dare, closing off swathes of content in response to choices and the passage of time



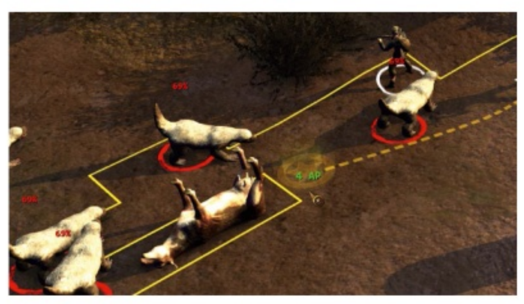
**AFTERGLOW**
*Wasteland 2* stands firm under modern scrutiny, but it's also a powerful nostalgia trip. Arizona is riddled with references, in-jokes and lore pertaining to the events of the original. From history books to the hidden gravestones of fallen Rangers, *Wasteland 2* is every inch a homage, and nowhere is this clearer than the 99-page player handbook. Technical limitations meant that the plot of the first *Wasteland* was mostly confined to its manual, with dialogue directing the player to the appropriate page. It's hard to see such reverence for what was and not feel warm inside.




**RIGHT** InXile takes every chance to break up the parched hellscape of tradition, preferring to focus on life run rampant. The variation this approach brings is invaluable.
**BELOW** The level of detail in each area varies erratically. From one scene to the next, rich colours might fade, the resolution could drop, or clutter may clear up. It's something that's particularly pronounced in random encounters.
**BOTTOM** Lone wanderers have no place in these wastes. Careful placement of troops is required before combat, lest you be caught unawares. Regrouping is agonising once turn-based battle commences





**ABOVE** Despite the importance placed on cover by *Wasteland*'s tutorials, it's either poorly arranged or not present. When confronted by mutant honey badgers, maintaining distance is the only advisable strategy




# Super Smash Bros For Nintendo 3DS

Generosity has long been *Smash Bros'* byword, and by that standard its 3DS debut is a triumph. The roster for the fourth version of this party brawler is so packed with characters – 49 or 51, depending on how you count the Mii Fighters – that there's a main and alt here for everyone. Customisable movesets and stats mean it's hard to exhaust even one character fully, while a flood of modes pours from colourful menus.

If only 3DS were more generously proportioned. When the principals in *Smash Bros'* deadly dance of rolls and dashes move apart and the camera pulls back, fights take on a tilt-shift quality, your facing and moves indistinct. Sakurai and co present the best possible solution to this intractable problem, with a clear effect indicating hits with the power to launch fighters off the screen, while optional inky outlines improve readability. Neither is enough to prevent momentary confusion and a few unforced ring-outs, but you can divide the likelihood for frustration by your 3DS's screen size.

When it works, and it overwhelmingly does, *Smash 3DS* feels luxurious and unimpeachable. It's a pacier, more breathless battle of wits than *Brawl*, though jumps are floaty enough to assist with the air game – helpful on small screens. And the framerate stoically keeps up, even with so much carnage onscreen that the eye can discern little other than attack effects.

Less uniform are the modes. The new Smash Run is a bite-sized challenge for snatched minutes, and a great way to fill your customisation wardrobe. But since rounds mostly consist of whaling on dim enemies for stat-boosting drops, then culminate in all-too-brief proper brawls or platforming challenges, it's soon tempting to cut out the middle man. The zenith is Classic, the standard arcade run towards a battle with Master Hand (in all its forms) enlivened by a sliding difficulty scale up front that enables you to bet coins to boost the challenge, plus your choice of paths along the way, with better rewards for facing greater resistance.

Online play is indefinitely entertaining as well, though not free of issues. Lag has been an infrequent problem for players across the globe, but it does irk when you're playing For Glory, where your results are counted, as opposed to knockabout For Fun battles. It's also baffling that stock matches are reserved for tussles among your friends list and competitive face-offs.

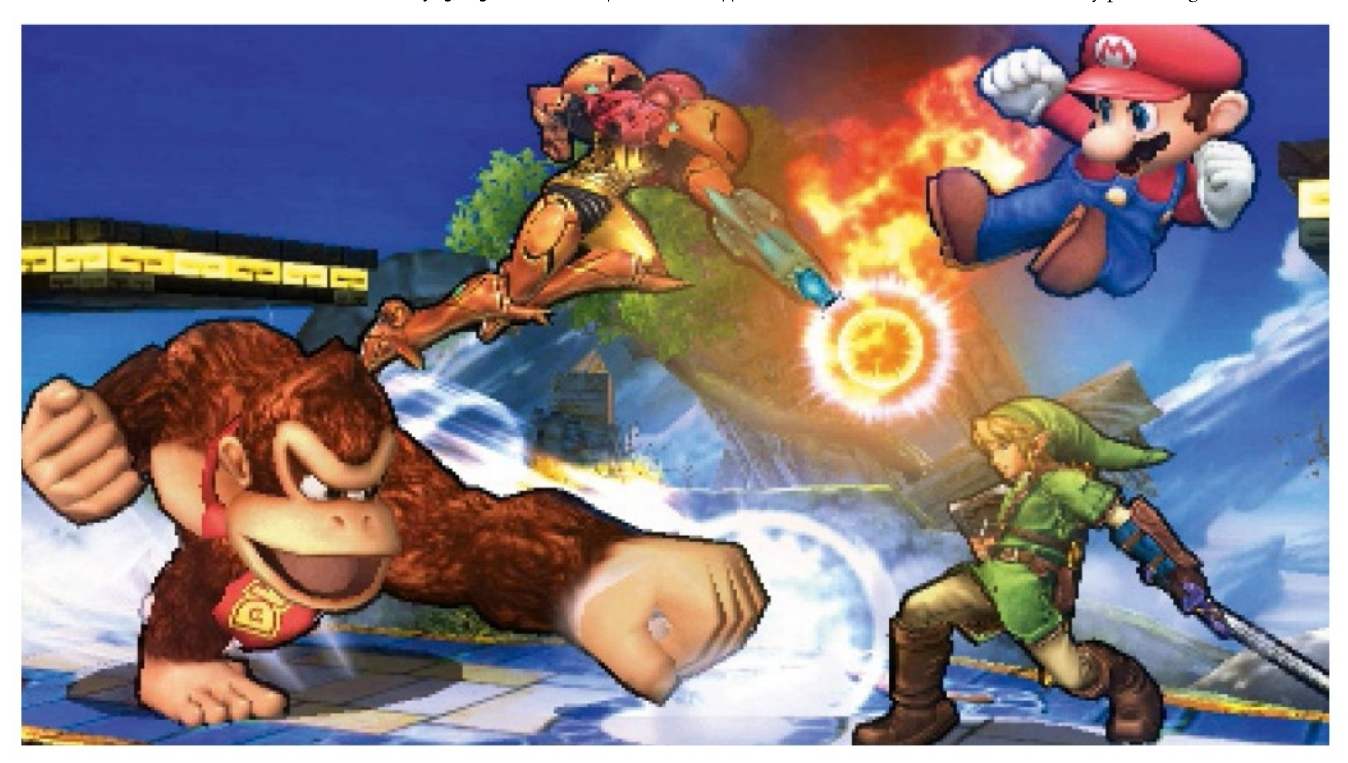
Irritations never last long in *Smash 3DS*, sandblasted away by the winningly varied combat and the sheer torrent of ways to enjoy it. There's plenty of headroom left for the Wii U version to surpass its cousin, then, but the first taste of Nintendo's unified approach to its console audiences is very promising indeed. **8**

**Fourplayer brawls feel frantic in a good way, although you can cut down on distractions by choosing the Omega form for each stage. These keep the local look, but ditch the hazards and restructures to test only fighting skill**

**Publisher** Nintendo
**Developer** Sora Ltd, Bandai Namco
**Format** 3DS
**Release** Out now



**COME AT MII**
*Smash* is predicated on the attraction of seeing Bowser beat the stuffing out of Pikachu, but Sora's solution to the generic Mii is inspired. By opting for archetypes – Brawler is a dash-heavy aggressor, Sword Fighter uses a blade to extend their reach, and Gunner is about mitigating damage and distance control – each custom character communicates their playstyle as readably as a known one, while a selection of specials allows you to hone your avatar in ways far deeper than their apparel.






# D4: Dark Dreams Don't Die – Season One

Sadly, *D4*'s outlandish cliffhanger ending looks optimistic. Director Hidetaka 'Swery' Suehiro has said that future episodes depend on sales of this opening season, yet leaderboard numbers suggest it's underperforming even by modest standards. That's no shock, because *D4*'s timing is lousy: it's a Kinect-controlled oddity arriving at a time when Microsoft is pitching its audience big games and no gimmicks. You can't help but wonder what went through the minds of Microsoft's executives when they saw the introduction: an upside-down 'Microsoft Studios presents...' slowly rotating the right way up as an owl's head does likewise.

This is your first indication that *Deadly Premonition* wasn't a happy accident. *D4* might be a very different game in form and content, but it's suffused with the same strangeness. It has a similar dreamlike ambience, and shares its creator's obsession with ostensibly mundane yet oddly captivating detail, from the calorific value of the foodstuffs you consume to the magazine articles on cats, animation and the Stanley Cup.

At first glance, PI David Young would appear to be a more conventional hero than Francis York Morgan. Yet soon he's blowing pink bubblegum and pouring tequila on his cereal, delivering lines in a Boston accent that his voice actor never quite nails. The recent murder of his wife has given Young the ability to time travel, using key items to solve past crimes, though you're left in doubt as to whether this is merely a delusion.

Young's first dive back in time sees him investigate the mid-flight disappearance of a drug courier. What follows is an eccentric twist on the modern point-and-click – think Telltale Games with a surrealist edge – with Kinect-powered navigation. The aim-and-grab interface is simple but uncommonly effective, and the control scheme comes into its own during QTE action sequences, which are well paced, energetically directed, and intentionally comical. Instead of 'press X to Jason', it's 'lunge forward to catch baseball', and with negligible punishment for failure and generous gesture recognition, Kinect has rarely been used so well.

Meanwhile, the narrative lurches wildly from dark drama to screwball comedy, with top notes of wistful melancholia. It's all held together by the cast, a troupe of caricatures and grotesques who nonetheless feel recognisably human – the paraphiliac fashion designer, the neurotic passenger, the taciturn marshal and the hot-tempered felon. It doesn't always work – one character's delivery is slow enough to test your patience – but these idiosyncrasies are all part of a singular, nonconformist vision. It would be a pity if this erratic, wonderfully offbeat adventure ended here.

**7**

**During the game's various dialogue sequences – in which you can voice your replies if you so wish – you're rewarded for picking the response from the three presented that's most in keeping with Young's character**

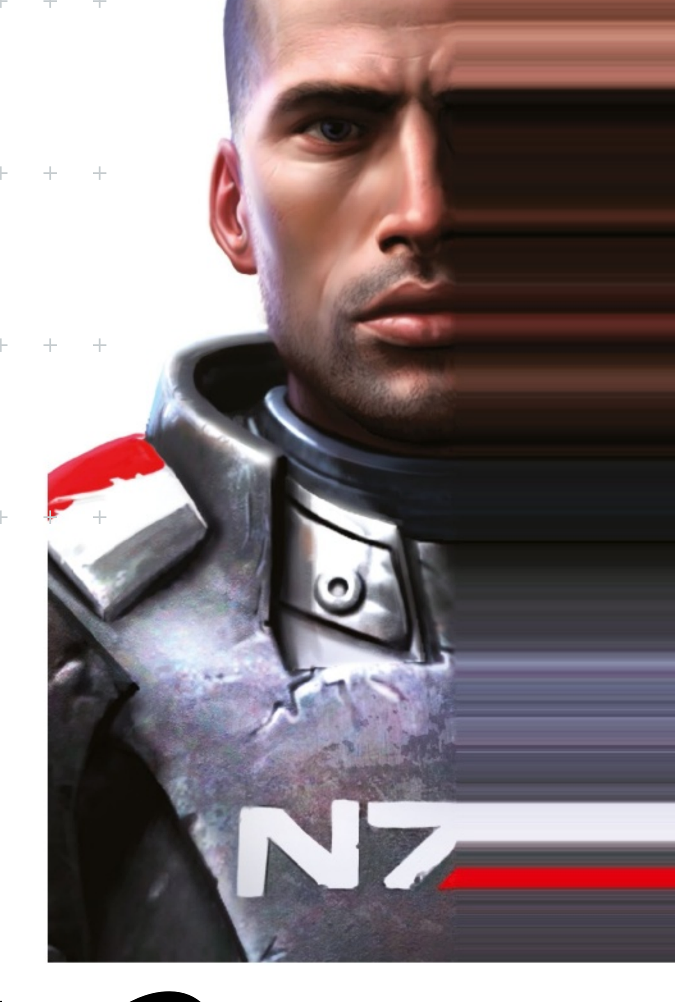
**Publisher** Microsoft
**Developer** Access Games
**Format** Xbox One
**Release** Out now



**F K IN THE CHOWDER**
Even basic interactions drain Young's energy meter, topped up by eating, so *D4*'s detective mode also points you towards the nearest snack. If at first this seems an unnecessary limit, it's soon clear that Swery knows what he's doing. Return to Young's pad for sustenance and you'll find plenty of incidental interactions, while sidequests invite thorough exploration. The finest of these is the first, where Young's partner engages him in a conversation about the quality of clam chowder in Boston.






# Mass Effect 2

How BioWare's radical reinvention of its space opera found an identity in the intimate and the personal

By Matt Clapham

**Publisher** EA **Developer** BioWare **Format** 360, PC, PS3 **Release** 2010

V*orp!* With a simple sci-fi sound effect BioWare tore apart the gleaming hull of the Normandy SR-1, scattered a great deal of what came before to the void, and split its burgeoning action-RPG series clean in two. Save files from 2007's *Mass Effect* might have brought with them an XP bonus or credit dump as well as the player's established continuity, but rarely before or since has the reset button been pressed so swiftly, or so heart-wrenchingly.

It was exactly what the series needed. One-time 360 exclusive *Mass Effect* had been a bright spot of promise for the console, buffed to a lens-flare-spilling sheen by being billed as a next-gen franchise that would move beyond binary morality and deliver a meaningful, ongoing space opera – one that wasn't Star Wars for a change. (Many studios now promise episodic gaming, but BioWare was crafting series-spanning narrative arcs long before that buzz-phrase was coined.) The opening part of the trilogy was certainly grandiose and epic in scope, yet somehow austere, a feeling compounded by a glut of anodyne shootouts and awkward driving filling the time away from its much-admired conversation wheel. It wasn't Star Wars, but nor had it found an identity among all its copious lore. As a concept piece, a pilot, it was tantalising enough, but more of the same would not do, especially when the world was drowning in thirdperson cover shooters thanks to 2006's punchy, hyperviolent *Gears Of War*.

And so millions watched the SR-1's malady in horror, took brief control of malleable returning protagonist Commander Shephard for a spot of eye-searingly beautiful *Dead Space* homage heroism, and then shaped a 4billion-credit rebirth. This wasn't just a sequel, it was a reinvention, and BioWare made sure everyone knew it.

Even if the point hadn't been hammered home, returning players would have noticed from Shepard's first woozy steps across a Cerberus lab. The Commander, once stately and tank-like under the sticks, now moved with a fluidity uncommon in the recently deceased, sliding into cover across Teflon floors on Vaseline-smothered boots. Even your starting pistol could dominate early combat spaces with a snap, crackle and mech-head pop that flash-vaporised expectations of another 20-plus hours of drab, feedback-light gunplay. But the real revelation would come when you fired up the power wheel for the first time and unleashed one of the new biotic or tech abilities. *Mass Effect*'s array of buffs, debuffs and crowd-control powers had hewed close to BioWare's RPG roots, though yoinking enemies out of cover and into the path of a sniper rifle was quite the trick in 2007. The sight of Shepard dashing across no man's land in a haze of roiling blue fire to explode into the enemy and shove a shotgun up their nostrils, however, promised a very different kind of combat interstitial between conversations. If *Mass Effect* games were Luc Besson movies, the original had been Lucy, all big ideas but little convincing peril, and 2 was The Fifth Element: an intergalactic excuse for daft, glorious carnage.

**Daft, not stupid.** Players didn't even have to wait for the introduction of creepy new Reaper lackeys the Collectors before they started having to manage enemy damage, with a separate bar each for tracking shields, barriers, armour and health. Of all the combat system's renovations, this was perhaps the most crucial, a gentle subversion of the RPG's long-in-the-tooth type-based attacks that meant the series could jettison the notion of a tough fight as one where health bars are hidden behind multiple blocks of blue shield and bullet-sponge powers. *Mass Effect 2* wouldn't ask you to face ice monsters that were weak to fire, but shields did melt away under the sustained pressure of an SMG, while biotic power Reave stopped health regenerating so you could put down tough organics such as the krogan or nightmare-imp newcomers the vorcha. And you'd have to control space as well as damage output, since enemies were as aggressive as you, flanking, setting up kill boxes, invading your personal space or flushing you out with flamethrowers.

BioWare could afford to bury the needle north of hectic, because any Shepard, regardless of gender or class, had a secret superpower: the ability to freeze time. *Quantum Break* creator Remedy is making an entire game out of frozen moments, but here they elegantly and invisibly supported ▶

tactical play, as you let the stale air in your lungs seep from your lips, read the situation and adapted. Yes, Shepard may have been able to make enemies hilariously pinwheel in slow motion though the air then biotically dash them to oblivion – kudos to whoever worked out how to really get some use out of Unreal Engine 3's physics simulations – but on the higher difficulties, *Mass Effect 2* became as much the thinking man's cover shooter as a heady power fantasy.

The shooting brought the game in line with the best of its peers, but the series' newfound sense of personal drama is what makes it unforgettable today. BioWare's genius was to add a generous extra glug of soap opera to its po-faced space opera mix, producing something all its own as a result. Where else in games can you assemble a team that consists of a dying part-monk, part-hitman seeking absolution in your noble suicide mission, a none-too-stable tatted-up psychopath who looks like Natalie Portman circa V For Vendetta, and an unflappable sentient machine construct housing 1,183 digital minds, much less bicker with or seduce half that crew? You may have to put the old band back together, but damn if you haven't pulled in an orchestra's worth of exotic new instruments along the way.

Indeed, the reason *Mass Effect 2* still stands as the high point of the series is that it is fundamentally a game about people, not concepts. Every Shepard is different, and so will their interactions be, but those are simply the filling between layers of rich character drama. Every principal cast member has something to say. Miranda has to deal with the pressures of being engineered for perfection, putting up an all-too-human wall of ice after years of dealing with a pushy father. Garrus and damp squib Jacob are takes on feeling ineffective in their work, though the former gets a chewy revenge subplot, too. The list is too long to recount here, and loyalty missions double down on the character development – success in the final act, where the entire galaxy is threatened, is dependant on solving personal crises, changing inner universes.

Singularity survived from *Mass Effect*, but the power was far more dynamic in this sequel, sucking enemies that crossed its event horizon into the swirling vortex of soon-to-be-corpses

**IN PROVIDING ROBUST INNER LIVES FOR ITS ALIEN-PACKED CAST, BIOWARE FOUND ITS WINDOW ON HUMANITY**

Forget fetchquests, strip mining and moon caches – helping Jack get some closure after her time as Subject Zero at the hands of Cerberus felt like it *mattered*. It is these stories, these little moments of pathos and reconciliation, where BioWare finally grounds its big questions about life. Gradually, you begin to feel as if it might be a tragedy to lose this universe, this diversity of damaged characters trying to find their way in the uncaring vacuum, to the Reapers. In providing robust inner lives for its alien-packed cast, BioWare finally found the window on humanity it had been seeking.

Shepard's uneasy alliance with Cerberus is the smouldering fuse that regularly threatens to detonate all of these volatile personalities, but it is also an excuse to let the player deviate from the virtuous Paragon path if they so wish. Anecdotal evidence



TOP **Martin Sheen's Illusive Man may not be subtle, but his theatrics are peerless.** ABOVE **Shepard's scars reflect his morality – unless you erase them in the med bay**



## STAR PORK

**After the sort of spurious allegations that floated around *Mass Effect* (graphic sodomy, corrupting a generation, the usual), BioWare backed down a little on what it showed in its plastic, borderline autoerotic romance scenes. But *Mass Effect 2* is the raunchier, more suggestive of the pair. Take Afterlife, a club on Omega where Asari dancers writhe on tables, which is managed by a woman who knows how to employ their 'special talents' to keep the locals in line; or the flirty and incredibly open-minded Kelly Chambers. They're an occasionally uneasy fit for a game with such a conscience about differences of race and creed, but BioWare does a fair job of representing a spectrum,with romances also forming from strong bonds between teammates, or old flames being rekindled, both adding to the stakes of the final suicide mission.**



Fragile, hostile Jack needs no rescuing when revived from cryostasis on Purgatory. Her loyalty mission, where you learn of the horrors visited on her by Cerberus, delivers a jolt of real revulsion for the agency's 'ends justify the means' philosophy

suggests that when given the choice, many will opt for videogame good over videogame evil. But so often in games, the evil path is simply the stupid one where you act like a dick to others for no good reason. Human civilisation is founded on social imperatives, so it's little surprise many struggle to shrug off their conditioning without incentive. By casting Shepard not as the white knight of humanity trying to earn our place in the stars but as an agent of a pro-human terrorist group that cares more about results than ramifications, the Renegade options finally made a little more narrative sense.

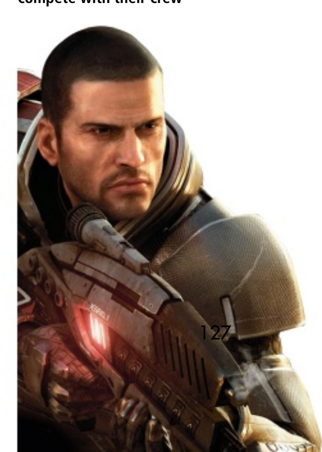
Which isn't to say *Mass Effect 2* delivered nuanced morality – that takes more tallying up good and bad actions on separate scales – but it did at least make roleplaying meatier. Would you taser an engineer to sabotage the gunship of a telegraphed later boss to make the fight easier? Or are you the sort of person who leaps in to defend a Quarian from racial harassment at the hands of a pompous Volus and a bent cop? You might feasibly be both, assuming you're not gaming the system to max out one type of conversation-wheel option.

Getting the player involved in everyday strife as well as world-ending crises lent the series an intimacy it had lacked. Anyone can be a hero when the only criterion is that all the bad men are dead at the end, but how you played *Mass Effect 2* had the power to say something about you as a person.

**It's easy to** forget, in the wake of *Mass Effect 3*'s reductionistic endings, how much *Mass Effect 2* felt like a realisation of the series' promise to respect your choices. Entire missions winked into existence or out of it based on your *Mass Effect* playthrough, old faces appeared in unexpected places, and you could alter the texture of the galaxy, even if the artifice involved meant the core structure had to be much the same. To replay *Mass Effect 2* now is not just a chance to pursue new combat options and morality, it is a reminder of what the most ambitious ongoing saga in videogames set out to achieve, and how choice-centred the universe it provided was, even when it fell short. Perhaps most importantly, it is proof that just because something's a sequel, that doesn't mean it can't be a total reinvention, at least given a studio at the height of its powers and a silly sound effect. ■



LEFT **YMIRs can force you out of cover with their rockets, but also teach you the folly of staying out in the open.** BELOW **We always preferred FemShep to this grizzled face, but neither one can compete with their crew**








JAMES LEACH

# Postcards From The Clipping Plane

Conveniently ignoring the serious side of videogame development

There are challenges and then there are challenges in the wacky world of game development. Having just written that, I realise it's true of the real world as well. There are challenges and there are challenges everywhere you look, expect perhaps for in Ashford in Kent. But we do not make games because they're easy. We do it because we get paid. And because some of us enjoy it.

As a writer, I'm aware that I don't do one of the most challenging elements. Show me an astonishingly realised Chinook that flies realistically, lands where I've asked it to, disgorges a troop of annoyed soldiers and then flies off again, before exploding in a ball of flames and shrapnel, and I have little idea how someone creates that. And yet, in my own little way, I have it tough too.

NPCs, for one. Sure, the aforementioned camouflaged surlies are fine. All you need to do to make them seem real is ask yourself what Ross Kemp would say in their situation, and get them to say anything else. But things get trickier when the remit is to make the player fall in love with a female NPC.

Why must the player fall in love? What if the player is a female herself? What if the player is already in a committed relationship in real life? These questions must never be asked. Instead, the idea is that if the game can get the player to fall headlong for the NPC, we get to do heartwrenching things later, and to provide emotional dilemmas that will leave them gasping with joy and writing nice things about us on Reddit (note: other unpoliced, shouty forums are available).

So how can it be done? Make our potential love partner flirty and suggestive? You'd think. After all, this works every time in the real lives of our chosen demographic. 'She's gorgeous! And strong-willed! And knows how to drive a combat-ready hovercraft while firing a gun most people couldn't even lift! Hearts are detaching from my corneas and popping cutely above my head!"

In the game, though, I'm Commander Max Death, the best soldier ever, and I've seen



I can't remember who said, "Know a person's secrets and you own part of their soul." I suspect it was Ken Dodd

things and am equally damaged by them. She's got to work a lot harder to be lovable. Plus, in that part of my brain that knows this is a game, I'm aware that I'm supposed to be bowled over by this pouting, enemy-slaying NPC and I resent being told what to do. Well, I'll do what I'm told when it comes to wiping out a citadel full of bad guys, but I'm not having the game order my hormones about.

So let's make our NPC aloof and solitary. If she's not interested, that'll be a red rag to a bull and everyone playing will swoon at her disinterested unavailability and will see it as another thing to overcome. But that won't work either. Everyone secretly knows that gorgeous, aloof people are irritating.

Scrap that. Give the NPC a secret that only the player will discover. I can't remember who said, "Know a person's secrets and you own part of their soul." I suspect it was Ken Dodd. This idea, though, is dead in the water too. The player is on a mission to save and/or destroy stuff, and anything that isn't wholly relevant to that is at best a distraction and at worst a dead end. For a game to be satisfying, everything – good or bad – has to tie up and fit, and rarely do people fall in love with those who carry the existential burden of knowing which castle contains the best sword.

We could make the player save our NPC's life. That's one lifted directly from films, so it must work. "When you save someone's life, you are responsible for it forever," as Mary Berry is fond of saying. But nope. Saving NPCs' lives in games is par for the course, because they're always putting themselves in harm's way. Plus, it's a purely strategic thing to do. Our goo-goo-eyed NPC does, as we are aware, know how to strip down an A-10 tankbuster using only her shoe.

Hey, she could save your life! Again, this won't do, because it means you've failed, or you'll be driven to the situation on rails, and no gamer likes to be aware of either of those things. Also, she's likely to be insufferable after that, and it's never a good look.

There is an answer to all this, and it's simple: make our shiny-haired lovely seem as realistic as possible and hope that by simply sharing the world-saving experiences with her, the player will go giddy with adoration. Give her a few catchphrases as well. And because the industry is still Triassic in its attitudes, make her look as much like Kelly Brook as possible. And phone up Kelly Brook's agent and ask if Kelly Brook can act. And, if so, pay Kelly Brook to come into a studio and read out the lines and catchphrases one has prepared earlier. Other girls are available.

*James Leach is a BAFTA Award-winning freelance writer whose work features in games and on television and radio*

Illustration **box-kite-curve.com**

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